

# *Upper Mississippi River Tallgrass Prairie Ecosystem*

## Ecosystem Description and Team Mission



USFWS Photo

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The Mississippi River and its tributaries include 186,100 square miles in the drainage basin making up the Service's Mississippi River/Tallgrass Prairie Ecosystem. The basin includes portions of Wisconsin, Iowa, Illinois, and Missouri. The work of the Service to meet the wide range of resource needs within such a large area is conducted by 17 Refuges and Wildlife Stations, two Ecological Services Field Offices and four fisheries Stations.

Six ecotypes are focus areas for this ecosystem including the Mississippi River channel corridor, stream and riparian woodland corridors, prairie wetlands, tallgrass prairie, oak savanna and forest lands, and the driftless area.

The Upper Mississippi River and tributary corridors provide the largest area of contiguous fish and wildlife habitat remaining in the Central United States. The Mississippi River and the tributaries have always provided an important haven and migration route for fish and wildlife, but because of the continuing loss of wetlands and forests, expansion of urban and agricultural areas, navigation, and channelization of many rivers, its importance has greatly increased in recent times. The Mississippi River was free flowing until 1914, when the Keokuk lock and hydro dam were completed. Additional dams were built for navigation purposes until the 1930s, when the last of a series of navigation locks and dams was installed in the stretch from the Twin Cities to Alton, Illinois. This created a series of pools which retain relatively constant water level for navigation. Downstream of St. Louis, the Mississippi is constricted by a series of wing dam, channel structures, and flood control levees. Channel constriction resulted in loss of much diversity and resilience. Concerns for the long-term viability of the Upper River's fish and wildlife resources related directly to the adverse effects of sedimentation, operation and maintenance of the nine-foot channel for navigation, flood control levees and the resultant loss of valuable bottom lands, industrial and sewer effluent, and urban and industrial runoff. Although the diversity and quality of fish and wildlife habitats continues to decline as a result of these influences, the watershed remains a critical oasis for countless migratory birds, fish, and furbearers, including a number of federally threatened or endangered species.

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***- Upper Mississippi River/  
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The streams and riparian woodland corridors of the Ecosystem are important aquatic and green way corridors throughout the entire ecosystem. In many agricultural sub-watersheds these habitats have been destroyed by channelization and clearing and are now represented by remnant stands. Though limited, such areas are still important in supporting wildlife. In other sub-watersheds such as the Wapsipinicon in Iowa, the Wisconsin River in Wisconsin, and the Kaskaskia and Cache Rivers in Illinois riparian corridors remain largely intact, supporting extensive stands of bottomland hardwood habitat. Wherever they occur within the Ecosystem, stream and riparian woodland corridors provide critical sources of water for a wide array of wildlife species, some of the last remaining winter cover in agricultural areas, travel lanes for larger game species such as white tailed deer, and nesting and roosting areas for migratory neotropical and resident birds (including many raptors). These areas also provide important habitat for the endangered Indiana Bat and the bald eagle. The larger streams support important interjurisdictional fish such as the paddlefish and sturgeon species, and provide important fisheries habitat for channel catfish and smallmouth bass. Many streams in the Driftless Area of southeast Minnesota, southwest Wisconsin, and northeast Iowa support important local trout fisheries. Both large and small streams throughout the ecosystem (when unchanneled) support rich arrays of native fishes. The streams and riparian woodland corridors of the Ecosystem are the aquatic, bottomland arteries that nourish fish and wildlife species inhabiting the rest of the ecosystem.

Wetland losses have been staggering in the Midwest; only 11 percent remain in Iowa. Even where significant proportions of prairie wetlands remain, land use changes have reduced the overall biodiversity. Small wetlands are more readily drained into larger wetlands so many of the ephemeral or seasonally flooded ones are gone leaving larger lake like habitat. Native species, especially amphibians, are dependent on ephemeral areas for a part of their life cycle. While ecological and biological importance of wetlands is well documented, the physical functions are less well understood and recognized. Clearly wetlands also play an important role in maintaining ecosystem functions such as protecting shorelands, recharging groundwater, cycling nutrients, and storing flood water and storm water runoff.

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Thirty million acres of tallgrass prairie graced the Upper Midwest at the time of European settlement. The topsoil formed by decay of grasses and roots formed some of the finest agricultural soils in the Nation. Many native plants and animals vanished from the landscape as the prairie was plowed to agriculture. Today, only a tenth of one percent of the original prairie remains in small tracts scattered throughout the ecosystem. Fish and wildlife populations of the prairie are dependent upon diverse plant communities that are rooted in deep, fertile soils. Prairie grasses historically abundant include big and little bluestem, switchgrass, and sideoats gramma. Among the prairie forbs and flowers that beautify these grassland landscapes are the prairie crocus, prairie cone flower, purple prairie clover, and blazing star. Wildlife populations which once flourished within the native grassland communities have also declined. By working directly with landowners through short and long-term agreements or easements, county, state, and federal agencies as well as private conservation organizations will protect and enhance the remaining tallgrass prairie tracts within the Upper Midwest. Acquisition of some tracts from willing sellers will also be necessary to prevent their conversion to cropland. Where possible, native tallgrass prairie grasses and forbs will be reestablished to enhance the biological value of existing remnant tracts. Restoration of prairie wetland complexes is a critical part of restoring the health of this ecosystem.

Oak savanna is a combination of grassland and forest in which the bulk of the land is covered with grasses and shrubs or with widely spaced trees, frequently of approximately even age creating a park like habitat. This fire-dependent ecotype covered most of Illinois, about half of Iowa and Missouri, southern and western Wisconsin, and southeast Minnesota prior to settlement by European immigrants. This ecotype once covered approximately 30 million acres. Today, the oak savannas of the Midwest are considered by some to be among the world's most threatened communities. Conversion of savanna to agricultural lands and elimination of fire has removed oak savannas in most areas as a functioning ecosystem. Fire suppression resulted in successional changes to mesic and shade tolerant species, which resulted in closing of tree and shrub canopies, and the loss of many native herbaceous species. Biodiversity in the savanna communities is very high, principally because they are transitional between forest and prairie. Management of savannas will require a landscape approach with sufficiently large blocks of savanna to provide critical habitat for native species, yet placed close enough to allow for movement. In addition to the savanna communities, the ecosystem contains significant parcels of upland xeric forests and bottomland hardwood forests, many of which are associated with the rivers and streams of the area. These are extremely critical areas for many species, including nesting habitat and migration corridors for birds. Threats to these forest types include fragmentation, and loss of important mast-producing hardwoods in the Mississippi and Illinois River corridors.

The Driftless Area in parts of Minnesota, Iowa, Wisconsin, and Illinois was not glaciated during the latter part of the Pleistocene epoch. It is characterized by highly dissected uplands with deeply cut valleys as streams cut through bedrock to create cliffs and algal slopes. These sites are habitat for a large number of plant and animal species that are either unique to this area or well out of their normal ranges. Of particular interest are the federally listed northern monkshood (threatened), Iowa Pleistocene snail (endangered), several candidate plant and invertebrate species, and a number of state listed species including the acadian flycatcher, cerulean warbler, Kentucky warbler, red-shouldered hawk (probable), wood turtle, yellowish gentian, and muskroot. Biodiversity is extremely high in this area. The Kickapoo River Valley alone contains approximately 500 plant species, which represents roughly 25 percent of the vascular plant species known to exist in Wisconsin. Most of the area does not need extensive habitat manipulation to enhance its value. In fact, aside from some forest management practices in a few areas and restoration of some grasslands to native species, the area is best managed through protection.

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## **Ecosystem Team Mission**

Perpetuate the ecological integrity of the Upper Mississippi River/Tallgrass Prairie Ecosystem through protection, restoration, and enhancement of the Ecosystem's function, structure, and species composition by full implementation of the Service's mandates.

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## **Summary of Fiscal Year 1998 Accomplishments**

Fiscal Year 1998 accomplishments for the Upper Mississippi River Ecosystem address Team priorities related to rare and declining species. A Paddlefish Coded Wire Tag Center was established via the Mississippi Interstate Cooperative Resource Association (MICRA) at the Carterville Fishery Resource Office. The Service will be the central repository for the data and will coordinate GIS applications with BRD. This project will be a long term study to assess, monitor and evaluate the status of paddlefish stocks throughout the waters of 22 participating Basin States. The Genoa National Fish Hatchery is the first federal hatchery to house native mussels from the wild. A study from 1995 to 1998 was conducted to evaluate differences in growth and survival among several species in the hatchery and wild, to determine mortality associated with moving various species from the wild to the artificial habitat, and assess if placement of mussels in a pond or river setting yields the greatest growth or survival. Development of husbandry and transplant methods for the eastern massasauga rattlesnake were researched via a partnership including Necedah National Wildlife Refuge, Wisconsin Bureau of Endangered Resources, Milwaukee County Zoo and Milwaukee Public Museum.

## Nuisance Species

Nuisance species were also a concern of the Team. Round goby, an exotic fish from the Caspian and Black Seas have spread to all of the Great Lakes except Lake Ontario. Movement of the round goby from Lake Michigan into the Upper Mississippi Ecosystem via the Illinois Waterway is a major concern of the Team. An annual intensive week long survey of the Waterway was lead by the LaCrosse Fishery Resource Office and included 18 partners. An electrical barrier to be funded by U.S. Army Corps of Engineers and the Environmental Protection Agency will be in place by the end of next summer to prevent further spread of this exotic.

Long-term planning is a key component to the Service Ecosystem Approach. Mark Twain National Wildlife Refuge is working with the Corps of Engineers , Illinois Department of Natural Resources and Missouri Department of Conservation on a master plan for general plan lands. Adjustments to agency boundaries should help clarify roles and responsibilities for the Refuge Comprehensive Management Plan effort to follow. The Iowa River Corridor Interagency Plan addresses broad areas and includes economic factors in addition to the biological component.

## Habitat Restoration and Preservation

Restoration and preservation of habitat for fish and wildlife are being addressed by the team. The focus of the team has been in upland restorations on refuges (5,218 acres) accounting for 51 percent of the Regional total for refuge acres restored. In addition the team accounted for nearly all (96 - percent, 1,200 acres) of the deepwater and riverine restorations for the Region. As would be expected for a team with a focus on rivers, water level management of over 24,000 acres was a large component of the Regional total for refuges (17 - percent). Specific examples of these elements include the recent addition of 17,000 acres to the Mark Twain National Wildlife Refuge which provides for restoration of floodplain functions and riverine habitat. Most of this acreage had been protected by levees and was in agricultural production. Reduction of sedimentation in the Halfway Creek and Sand Lake Coulee Creek watersheds, tributaries to Lake Onalaska, is being pursued as an incremental step to protect the Mississippi River. The town of Onalaska funded a study that provided development density, stormwater, and sediment management recommendations. The Upper Halfway Creek Marsh Project in the LaCrosse District of the Upper Mississippi National Wildlife and Fish Refuge is a component of this effort and includes partners such as the town, county, state department of natural resources, UW-Extension Services, Natural Resources Conservation Service, and Ducks Unlimited. The Wisconsin Private Lands Office and Leopold Wetland Management District working with NRCS, Ducks Unlimited, and Sand County Foundation have signed options with 5 of 7 landowners towards a goal of restoration and acquisition of 900 acre drained wetland near the confluence of the Baraboo and Wisconsin rivers.

## Habitat Restoration and Preservation (continued)

The refuge and wildlife program emphasis on outreach for the ecosystem is evident in the fact that over 14,000 visitors participated at group presentations and over 94,600 people viewed off-site exhibits; 23 and 12 percent of the total for Region 3 respectively. The Team also accounted for 23 percent of news releases (156), 16 percent of television or radio spots (91) and conducted 15 percent (44) of other special events in Region 3.

Partnerships have been a key feature of management of the Upper Mississippi River for over 55 years. Ecosystem Team members continue to be involved in committees and subcommittees of the Upper Mississippi River Conservation Committee, UMR Basin Association, Mississippi Interstate Cooperative Resource Agreement, Minnesota and Wisconsin Boundary Area Commission and assessments such as Long Term Resource Monitoring Program, UMR Navigation Expansion Study, Habitat Needs Assessment, etc. Team members are also involved with cooperative habitat management with a focus on fish and wildlife habitat restoration with resultant benefits of soil and water conservation. The approach is especially effective at the landscape scale when coupled with acquisition, regulation or government subsidies. Refuge, fishery resources, and ecological services staffs are forming their own "Stream Team" for the Driftless Area and have begun to assist demonstration projects on the Whitewater River in Minnesota and on Trout Run near Decorah, Iowa. Additional partnerships include the Horicon Area Marsh Coalition on water quality issues, River Resource Forum dealing with channel maintenance, Iowa River Corridor Project, and the Illinois River Strategy Team, and the Oak Savanna Partnership (including Necedah National Wildlife Refuge) to pioneer savanna restoration.

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## Goals for Fiscal Year 1999

Restore/enhance/protect (generally in reference to non-Service managed lands) 1,000 acres of prairie, 800 acres of wetlands, 1,000 acres of oak savanna and forestlands and 10 miles of river, streams and riparian corridors. Continue ongoing work/studies with trust and interjurisdictional species such as migratory birds, Higgins' eye pearly mussel, paddlefish, Karner blue butterfly and northern monkshood in these habitats. Responsible parties: All ecosystem field stations.

Continue coordination with state departments of natural resources, Army Corps of Engineers, U.S. Geological Survey and other partners on two pool-wide water level management experiments, the Habitat Needs Assessment, Navigation Study and the Environmental Management Program. Responsible parties: Twin Cities FO, Upper Mississippi River National Wildlife and Fish Refuge, LaCrosse Fishery Resource Office, Rock Island Field Office, Mark Twain National Wildlife Refuge, Marion Field Office, Marion Fishery Resource Office and Large Rivers Fisheries Coordination Office.

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### **Trempealeau National Wildlife Refuge Hosts Deer, Duck Hunts for Disabled Hunters**

#### *Trempealeau National Wildlife Refuge*

Four disabled hunters participated in Trempealeau Refuge's annual deer hunt. The hunt took place from October 4 - 12, 1998, on the Upper Farm area of the refuge. No deer were taken, but the hunters appreciated the opportunity. On October 18 - 19, 10 disabled waterfowl hunters participated in the ninth annual hunt on the Upper Farm area of Trempealeau National Wildlife Refuge. Two volunteers coordinated hunters, other volunteers, and equipment. Twelve volunteers and their dogs assisted the hunters on the two days of the hunt. A record number of ducks were harvested and all enjoyed the experience. **10/97**

### **Trempealeau National Wildlife Refuge Hosts Refuge Week Activities**

#### *Trempealeau National Wildlife Refuge*

On October 18, 1998, the refuge hosted various activities for the Refuge Week celebration. Bird walks, children's craft activities, and driving tours were scheduled throughout the day. Staff at the observation deck answered visitor's questions and distributed posters, bookmarks, literature, and birding tips. Four volunteers assisted with the activities. **10/97**

### **Students Learn About Wetlands, Birds and Outdoors During Environmental Field Days**

#### *Trempealeau National Wildlife Refuge*

Five hundred seventy-five eighth graders from Trempealeau County schools visited the refuge October 1 - 2, 1997 as part of Environmental Field Days, an annual event designed to instruct the students in outdoor issues. Refuge staff and five volunteers conducted programs on aquatic invertebrates, wetlands, birds, and migration. **10/97**

### **Necedah National Wildlife Refuge Initiates Oak Barrens Restoration**

#### *Necedah National Wildlife Refuge*

Necedah National Wildlife Refuge completed a selective thinning of 220 acres of upland forest to restore oak barrens habitat. This rare habitat has decreased from 12 percent to less than 0.14 percent of Wisconsin's land base. This is the beginning of a program to restore approximately 3,000 acres of oak barrens at the Necedah Refuge. Prescribed fire will finish the task of removing the slash and rejuvenating the habitat. **10/97**

### **Brownie Troop Collects Seeds for Trempealeau National Wildlife Refuge**

#### *Trempealeau National Wildlife Refuge*

Twenty scouts from a local Brownie troop spent the morning of October 18, 1997 at Trempealeau Refuge learning about prairie management. The girls collected seeds from various grasses including big bluestem, little bluestem, Indian grass, and sideoats grama as well as prairie flowers including blazing star, purple prairie clover, and whorled milkweed. They spread the seed in an adjacent area where native grasses were sparse. **10/97**

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- Ecosystem  
Team Leader***

## **Necedah National Wildlife Refuge Met 1997 Banding Quota with 741 Birds**

### *Necedah National Wildlife Refuge*

The 1997 banding season closed October 18, 1997. Two scout groups, two school groups and attendees at the National Wildlife Refuge Week open house participated in the banding experience. The Necedah National Wildlife Refuge was assisted by members of the Wisconsin Conservation Corp and two other refuge volunteers. These assistants helped refuge staff with baiting, capturing, handling, and recording. **10/97**

## **Meeting to Develop Video on Investigative New Animal Drug Process**

### *LaCrosse Fish Health Center*

Meeting members brain stormed for a day at the recently opened National Conservation Training Center in Shepherdstown, W.Va., to develop a 15-20 minute video on the role Investigative New Animal Drugs (INAD) will have in generating approved chemotherapeutants in the aquaculture industry. There is concern within the Service that federal, state, Tribal and private fish growers are not aware of the importance of work being done by the Service in developing these drugs. With the assistance of Cathy Johnson at National Conservation Training Center, the members feel confident in developing a professional video to be distributed for public viewing in August 1998. **12/97**

## **Winona, Hosts Fourteenth Annual Swan Watch**

### *Upper Mississippi National Wildlife and Fish Refuge*

Refuge Biologist participated in the Fourteenth Annual Swan Watch hosted by the Winona, Minn., Area Convention and Visitor Bureau. On Sunday, November 2, 1997, swan watchers were able to view flocks of 150 to 900 birds at 5 different locations during the auto tour. There were 70 swan watchers participating in the event. **11/97**

## **Boy Scout Troop Completes Fishing Pier**

### *Mark Twain National Wildlife Refuge*

Boy Scout Troop 90 from Davenport, Iowa, has completed a handicapped-accessible fishing pier on the Louisa Division of the Mark Twain National Wildlife Refuge. The construction of the pier was Jason Shadrick's Eagle Scout Project, and he and his fellow scouts contributed 250 hours towards its construction. The pier is 360 square feet in size, and will allow anglers of all ages and abilities to fish at the popular Lake Odessa inlet channel. **12/97**

## **Winona District Assists With Prairie Seedings**

### *Upper Mississippi National Wildlife and Fish Refuge*

The Winona District has purchased a no-till Truax grass drill to assist other agencies and private landowners with prairie seedings, primarily on land enrolled in the Conservation Reserve Program. During 1997, 83 acres were seeded among 12 sites in four counties in Wisconsin and one county in Minnesota. The drill was purchased partly with Service Challenge Grant funds with six different partners providing financial assistance — Wisconsin Department of Natural Resources, Pheasants Forever, Alma Rod and Gun Club, Winona County Soil and Water Conservation District and Minnesota Waterfowl Association. **11/97**

## **"Ducks on a Stick" Purchased Through Challenge Grant**

### *Upper Mississippi River National Wildlife and Fish Refuge*

Seven local groups contributed \$1,125 to match Service funds for the 30 waterfowl mounts that will make up the collection. The specimens include the more common waterfowl species that are found on the Upper Mississippi Refuge. The 15 completed specimens have been used several times this fall for educational purposes. The seven contributors include: Swan Watch, Alma, Wis; Ducks Unlimited, LaCrosse, Wis. and Winona, Minn; Winona Senior High School Biology Class; Minnesota Department of Natural Resources; Dodge Sportsmen Club and Alma Rod & Gun Club) **12/97**



### **Increased Flow Minimum Set for Neshonoc Hydroelectric Project**

#### *Green Bay Field Office*

The Fish and Wildlife Service and Wisconsin Department of Natural Resources (Agencies) completed an in stream flow study at the Neshonoc Hydroelectric project, located near West Salem, Wisconsin. Subsequently, the Federal Energy Regulatory Commission accepted the Agencies' recommendation to increase the minimum flow from 120 cfs (cubic feet per second) to 170 cfs at the hydro power project. This increase in daily discharge at the project will substantially improve free - flowing riverine habitat for fisheries and riparian wildlife as well as improve navigational conditions for recreational boating in the LaCrosse River for approximately 15 miles downstream to its confluence with the Mississippi River. **10/97**

### **Five-Month Drawdown of Lizzy Paul's Pond Completed**

#### *Upper Mississippi National Wildlife and Fish Refuge*

A partial water level drawdown of the 51- acre Lizzy Paul's Pond near Alma, Wisconsin, was conducted via pumping from June 23, 1997 through October 14, 1997. The objectives of the project are to enhance wetland vegetation and improve habitat for fish and wildlife. This project, funded under the Environmental Management Program, could provide the basis for public support for larger water-level manipulations on a pool-wide scale in the future. **10/97**

### **Horicon Refuge Participates in Environmental Education Fair**

#### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge staffed a booth for the first annual Washington County Environmental Education Resources Fair held at Kettle Moraine Lutheran High School on Oct. 21, 1997. The booth promoted environmental education opportunities available through the Refuge, such as the Prairie Trunk, field trips and other programs, free poster, maps, and brochures. The fair was sponsored by the Environmental Subcommittee of Healthy Washington County and was geared to K-12th grade teachers and youth leaders. A hefty Community Resources Environmental Education Directory was also provided to all participants, and its listings included refuge offerings. **10/97**

### **Successful, Busy Tourist Season at Horicon National Wildlife Refuge**

#### *Horicon National Wildlife Refuge*

The visitor center was open seven days per week again this fall to provide extended hours and services to tourists during the busiest public use season of the year. Over 13,500 people used the visitor center during that time and enjoyed marsh exhibits, the viewing deck with spotting scopes, souvenirs and gifts for sale at Coot's Corner, and a staffed information counter. Thirteen volunteers staffed the visitor center and worked 311 hours. When volunteers were not available to work, five intermittent employees filled in, working 384 hours for the season. Other refuge employees helped out when needed as well. **11/97**

### **Horicon Refuge Sales Area Nets \$12,000 During Fall**

#### *Horicon National Wildlife Refuge*

Almost \$12,000 was made during the fall season at Horicon National Wildlife Refuge's sales area, Coot's Corner, administered by the Midwest Interpretive Association. This amount in net sales is significantly up from last year. In addition, the donation box received more than \$400. **11/97**

### **Wapello District's Auto Tour Features Ducks, Geese and Bald Eagles**

#### *Mark Twain National Wildlife Refuge*

The Mark Twain National Wildlife Refuge, Wapello District, conducted a special auto tour of the Louisa Division on November 9, 1997. The Division is normally closed to all public entry in the fall, but was opened for this one-day event. Ducks, geese, and bald eagles performed for the 530 visitors who attended and the entire refuge staff was on hand to answer questions. The staff received nothing but positive comments about the tour, which was attended mainly by families. **11/97**

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**-Horicon National Wildlife Refuge**

## **River Sedimentation Effects Explained to QC Propellor Club**

### *Large River Fisheries Coordination Office*

The Large River Fisheries Coordinator joined the QC Propellor Club last winter and has since worked toward establishing relationships with industry officials, U.S. Army Corps of Engineers personnel, and watercraft owners involved in the river navigation expansion issue. Members of the Club received Service presentation on the impacts of sedimentation and dredging on fish and wildlife resources. The goal is to have members of these organizations view Service concerns from an "associate" point of view rather than from an "adversarial" position. **11/97**

## **Refuge Friends Organization Begin Their Membership Drive**

### *Upper Mississippi National Wildlife and Fish Refuge*

The Savanna Chapter of the Friends of the Upper Mississippi River Refuges, kicked off their membership drive at the board meeting held in Savanna, Illinois. The Friends' goals are to support the multi-use concept, inform the public about benefits of the National Wildlife Refuges, provide opportunities for volunteers, locate funding for projects and activities to enhance the Refuges and inform elected officials about refuge issues. Three volunteers of the Savanna District have donated 200-plus hours in the organization of the Friends Group. **11/97**

## **International Stewardship Conference**

### *Cypress Creek National Wildlife Refuge*

Refuge Manager M. Hills and Southern Illinois Director Matt Nelson, attended the International Stewardship Conference in Tucson, AZ. They represented the Joint Venture partnership and the Cache River Wetlands, which has the significant designation as a Ramsar Site. Primary themes of the conference highlighted partnerships and watershed management. **1/98**

## **Chicago Field Office Publishes Guide to Native Plants**

### *Chicago Field Office*

To meet a perceived need and to codify unpublished information, an interagency publication titled Native Plant Guide for Streams and Storm water Facilities in Northeastern Illinois was completed and distributed. It has been highly acclaimed and will provide a tool for local planners, designers, and decision makers for using native plants along streams and around storm water basins to enhance wildlife habitat,

water quality, and infiltration in the urban and suburban Chicago area. The Chicago Field Office provided technical assistance and primary authorship of this interagency publication which is available from all local Soil and Water Conservation Districts in Illinois. **1/98**

## **Horicon Complex Recognizes Volunteers' Successes**

### *Horicon National Wildlife Refuge*

At the Volunteer Recognition Evening, many volunteers were recognized for their contributions in 1997. In all, 252 people donated over 7,700 hours of time and talent to make the Refuge a better place for people and wildlife. This represents a huge increase in numbers of volunteers who participated in 1996 (105 people). The estimated value of their time in 1997 is over \$91,000. Chris Sarver of West Bend was named Volunteer of the Year, and Sara Hefter of Fond du Lac, Wis., and the Beaver Dam Charter School received special recognition for contributing the most hours in 1997 (219 and 653+ respectively). Volunteers worked in administrative, public use, biology, and maintenance projects. **1/98**

## **Proposed Baraboo Waterfowl Production Area Acquisition Gains New Partner**

### *Leopold Wetland Management District*

Leopold Wetland Management District, Wisconsin Private Lands Office, Natural Resources Conservation Service and Wisconsin Department of Transportation are teaming up to propose a 900-acre acquisition near the confluence of the Baraboo and Wisconsin Rivers. A 30-year Wetland Reserve Program easement will piggyback this acquisition if offers to seven landowners are accepted. Recently, the project was presented at the Wisconsin Ducks Unlimited annual meeting, and the committee endorsed a \$50,000 Marsh proposal to become a major partner. **1/98**

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**- Horicon National Wildlife Refuge**

## **National Wetland Program Coordinator Visits Cypress Creek Refuge**

### *Cypress Creek National Wildlife Refuge*

Cypress Creek Refuge, The Nature Conservancy, and the Natural Resource Conservation Service hosted Bob Misso, national Wetland Reserve Program (WRP) coordinator, on a tour of lands proposed for enrollment in WRP. The properties highlighted include 2,650 acres that are within the Refuge and state purchase boundary. The tour highlighted accomplishments, partnerships, and demonstrated restoration potential in the watershed that can be achieved with the assistance of the WRP program. **1/98**

## **Necedah National Wildlife Refuge Timber Salvage Sale Completed**

### *Necedah National Wildlife Refuge*

Forty acres of flooded and insect-damaged trees were salvaged by a local timber buyer offering the highest bid. The harvesting not only adds a little help to the local economy, it also reduces fuel loadings on federal property adjacent to private lands thereby reducing wildfire hazard potential. Also, makes room for regeneration of wildlife-dependent habitat. **1/98**

## **Horicon Refuge Complex Hosts Neighbors Gathering**

### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge employees hosted another successful Neighbors Gathering. Over 100 Refuge neighbors, members of the media, and Congressional representatives were invited to this annual event. Refuge staff took turns recapping 1997's events in all program areas, including biology, public use, maintenance, construction, management, etc. Staff also talked about the highlights for 1998. Many positive comments were received, including good suggestions for improvements. **2/98**

## **Cyber-Hunters Track Waterfowl Migrations on World Wide Web**

### *Upper Mississippi River National Wildlife and Fish Refuge*

Waterfowl hunters are turning to the world wide web for waterfowl population information on the Upper Mississippi River National Wildlife and Fish Refuge. During waterfowl season, biologists from the Service and the Wisconsin Department of Natural Resources fly over the Refuge to count ducks, geese, swans, and other water birds. Each week during fall migration, three air crews cover nearly 300 miles of river, coordinating flights according to staff availability and the weather.

Refuge staff post the waterfowl numbers on the Internet as soon as possible, usually within a week of the flight. The data are accessible on the web 24 hours a day. Many hunters have responded positively to the Internet service, citing the information as "invaluable". During 1996 the total number of hits on all Refuge pages was approximately 10,500, in 1997 the total number was close to 28,000. **2/98**

## **80,000 Tree Seedlings Planted on Cypress Creek National Wildlife Refuge**

### *Cypress Creek National Wildlife Refuge*

Cypress Creek Refuge staff and volunteers began the annual reforestation efforts on January 30, 1998; the earliest that Refuge staff have ever started planting. Due to warm and dry weather conditions, staff and volunteers planted 80,000 seedlings over approximately 200 acres; another 35,000 seedlings will be acquired from the state tree nursery for contract planting in the low, wet areas and additional planting by Refuge staff. The Refuge is fortunate to have funding assistance from outside sources; each year over \$40,000 is contributed to the reforestation effort on Cypress Creek National Wildlife Refuge. **2/98**

## **Necedah National Wildlife Refuge Completes GIS Office Work Space**

### *Necedah National Wildlife Refuge*

Refuge staff constructed a new office in unused space in the basement of the main headquarters building. All work was done by force account. The office is now complete for GIS/LIS work. This will be a dedicated shared area for any refuge staff or interns working with GIS systems. GIS work itself is a relatively new endeavor for the Necedah Refuge, so having a facility to accommodate the learning will greatly enhance the capabilities. **2/98**

## **Successful Trapping Season Ends at Horicon National Wildlife Refuge**

### *Horicon National Wildlife Refuge*

In conjunction with the Department of Natural Resources, an auction was held in September for the 1997-98 trapping season. Three dike units, eleven marsh units, and two upland units were sold on the Refuge for \$8,130. In addition, three youth units were given away at no charge. Total harvest for the season was 7,744 muskrats, 73 raccoons, 86 opossum, 16 mink, six skunk, and three fox. **3/98**

### **Necedah Refuge Helps High School's 'Save Our Streams' Program**

#### *Necedah National Wildlife Refuge*

Biology and chemistry classes from the Necedah High School came to Necedah National Wildlife Refuge to explore concepts of watersheds, water quality, and how they relate to fish, wildlife, plants, and people. Two teachers and 86 students measured water for pH, dissolved oxygen, and hardness and took samples from several sites to inventory aquatic invertebrates in two Refuge pools. Isaak Walton League's Save Our Stream invertebrate sampling protocols and materials were used to structure the program. **4/98**

### **Necedah National Wildlife Refuge Gives Karner Blue Butterfly Program**

#### *Necedah National Wildlife Refuge*

A slide presentation explaining the life requirements of the federally-endangered Karner blue butterfly was given at Necedah Municipal hall. After the slide presentation, a question and answer period was held on the program and any other questions or concerns the visitors had. The Necedah National Wildlife Refuge CCP was also discussed and a comment period was allowed. **4/98**

### **Service Special Agent Teaches First-Second Graders About Wild Turkeys**

#### *Madison Law Enforcement Office*

Special Agent Ed Spoon gave a 45-minute presentation about wild turkeys to first and second graders at Country View Elementary School, Verona, Wis. The class is currently studying birds. Special Agent Spoon brought in turkey wings, tails and other parts to show the differences between adult and juvenile male and female turkeys. He showed a short video segment of a male turkey gobbling and strutting and demonstrated use of the box call, slate call, and diaphragm call. **4/98**

### **Baraboo Wetland Restoration Moves Ahead**

#### *Wisconsin Private Lands Office*

Options have been signed with Wisconsin landowners to enter into the Wetlands Reserve Program and to sell to the Service. Projects involve 900 acres of restorable wetlands in the flood plain of the Baraboo River. Funds will come from Natural Resource Conservation Service, Ducks Unlimited, Wisconsin Department of Transportation, and the Service. Property will be under the ownership and management of the Service and will be established as a waterfowl production area. Total project cost is estimated at \$1.3 million. **4/98**

### **Mississippi River Fish Sampled for National Survey**

#### *LaCrosse Fish Health Center*

LaCrosse Fish Health Center staff and volunteer Ryan Fritsche, University of Wisconsin-LaCrosse, sampled approximately 150 wild fish from Pool Nine, Upper Mississippi River, from March 30, 1998 through April 17, 1998. Fish were collected by Genoa National Fish Hatchery staff. Bacteriology, parasitology and virology samples were taken from bowfin, carp, spotted sucker, largemouth bass, walleye, redhorse sucker, smallmouth and largemouth buffalo, bluegill, channel catfish, freshwater drum, smallmouth bass, and white bass. Laboratory results will be entered in the National Wild Fish Health database. **3/98**

### **National Fish Technology Evaluation Team Meets at LaCrosse**

#### *LaCrosse Fish Health Center*

The National Fish Technology Evaluation Team met in March 1998 at the LaCrosse Fish Health Center in Onalaska, Wis. The Team is composed of deputy assistant regional directors from seven regions and a Washington Office representative. Rick Nelson and Becky Lasee presented the proposal for Fish Technology Center status for LaCrosse Fish Health Center and gave a tour of laboratories and facilities. The Evaluation Team supported the proposal and progress will continue in development of a Fish Technology Center in Region 3. **3/98**

### **Necedah National Wildlife Refuge Hosts Open House for Wildlife Week**

#### *Necedah National Wildlife Refuge*

The National Wildlife Week celebration weekend included a presentation on the history of the Refuge, tours of the facilities, discussion on the CCP and vegetation identification tours. The events were held not only for National Wildlife Refuge Week, but to familiarize visitors to things that the Refuge has to offer and provide discussion on management practices. Those attending were able to have one-on-one interactions with staff. **4/98**

## **Necedah National Wildlife Refuge Office Renovation Project Completed**

### *Necedah National Wildlife Refuge*

The headquarters office area was remodeled to better accommodate visitors, yet provide for privacy for staff. Walls were constructed making a more efficient area in a large back room for 3 work areas. A pocket door was put in office immediately adjacent to visitor contact area to enable an administrative technician to cover easily when front desk staff is away. Another benefit was increased storage areas resulting in less clutter visible to casual visitors. **3/98**

## **Necedah National Wildlife Refuge Reaches out to 5,000 Students for Wildlife Week**

### *Necedah National Wildlife Refuge*

Student intern, Lori Bills from Fox Valley Tech College, contacted 36 area schools, distributing National Wildlife Refuge Week packets and videos for observing National Wildlife Refuge Week, April 19-25, 1998. Ms. Bills also selected and duplicated the appropriate videos to further illustrate this year's theme, "Nature's Web". An additional 12 schools and 4-H organizations were also contacted and provided with packets by refuge staff. **4/98**

## **Water Pumps Course Conducted at Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

Seventeen individuals from the University of Wisconsin-Stevens Point fire crew attended an eight-hour field course training at Necedah National Wildlife Refuge to learn and practice operating water pumps and setting up various hose laps. Refuge staff and University Fire Crew members put the course on to provide interagency emergency response crew members a part of the required training and experience needed to perform various tasks. **4/98**

## **Students 'Vacation' at Crab Orchard, Receive Hands-on Refuge Experience**

### *Crab Orchard National Wildlife Refuge*

When many college students hit spring break they spend their time basking in the sun in Florida, Jamaica, or Cancun. This year four Southern Illinois University students spent their Spring break assisting the Refuge in resource planning, recreation management, visitor information center operations, forestry management, wildlife management and public use management programs. Working cooperatively through the SIU Alumni Association Extern program, students received

hands-on experience while the Refuge received professionally-trained assistance in its diverse management programs. **4/98**

## **Eagles are Back at Crab Orchard**

### *Crab Orchard National Wildlife Refuge*

For the first time in more than two years, three pairs of Bald Eagles are again incubating eggs on the Crab Orchard National Wildlife Refuge. Three years ago Great Horned Owls evicted one nesting pair and cut eagle production in half, from six young birds to three young birds on the Refuge. Not to be outdone, a new nest was built by one pair of eagles and eggs are being incubated. **4/98**

## **Special Agents Instruct Wisconsin Department of Natural Resources Warden Recruits**

### *Madison, Law Enforcement Office*

Service special agents instructed a class of 17 conservation warden recruits about federal laws enforced by the Service. The agents emphasized the Law Enforcement Division's desire to work closely with state Conservation wardens to accomplish its mission. The theme of the day's presenters was "Building Partnerships." Recruits received an overview of the work of the Service with an emphasis on Service activities in Wisconsin. Other panel members represented the State Patrol, Sheriff's Office, and Great Lakes Indian Fish and Wildlife Commission. **3/98**

## **Hatchery Begins Spring Spawning of Northern Pike**

### *Genoa National Fish Hatchery*

The staff at the Genoa National fish Hatchery began netting to collect northern pike brood stock from the Mississippi River on March 23, 1998. Along with collecting the brood fish, the hatchery staff is collecting other species used in research at the Upper Mississippi Science Center, and fish to be sampled for the Service's wild fish health survey. As of March 27, 1998, five million green eggs have been collected to be used in stocking programs which meet Service fisheries priorities. **3/98**

## **LaCrosse Fishery Pool 12 Dredge Placement Study**

### *LaCrosse Fishery Resource Office*

The first week of field work was a success for the Pool 12 Dredge Placement Study. LaCrosse Fishery Resource Office staff conducted the field portion of the study by running water quality, determining habitat and conducting netting and electrofishing. The water was cold and the initial catch was low. This study is co-funded by the U.S. Army Corps of Engineers and the Service.

Information gained will be used by managers to make decisions on dredge material placement. **3/98**

## **Horicon Refuge Reaches Outdoor Enthusiasts at Milwaukee Sports Show**

### *Horicon National Wildlife Refuge*

Refuge staff partnered again this year with the America's Outdoors Center to provide outreach at the Milwaukee Journal - Sentinel Sports Show, March 13 - 22, 1998. A booth focusing on outdoor federal recreational lands plus the interactive Smokey Bear's classroom for kids was also staffed by Bureau of Land Management, Forest Service and National Park Service staff throughout the show. A record 145,000 people attended the show, with an estimated 10,000 people stopping by the booth. Refuge staff also provided a slide show seminar about the Refuge. Necedah National Wildlife Refuge and Upper Mississippi River Refuge provided station information for distribution. Necedah Refuge staff also helped man the booth. **3/98**

## **Horicon Refuge Celebrates National Wildlife Refuge System Birthday**

### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge celebrated the 95<sup>th</sup> anniversary of the National Wildlife Refuge System with the "Wild Things Birthday Party," and by having the Visitor Center open for the day. Twenty-five people attended the program, which was fully booked two months in advance by two girl scout groups. Activities included a wildlife signs slide show and guided hike, party games, cake, punch, and goody bags. Eighty news releases were mailed in advance, and known media coverage was provided by the Daily Citizen, WMRH, and WBEV. Intern Kasha Christopherson assisted with activities, and volunteer Nancy Hall staffed the Visitor Center. **3/98**

## **Biology Students, Scouts Learn About Spawning Fish**

### *Genoa National Fish Hatchery*

Fourteen Biology students from Central High School of LaCrosse, Wis., visited the Genoa National Fish Hatchery to learn about spawning Northern pike. The students observed the hatchery's Northern pike spawning operation and learned how to spawn fish and why hatchery propagation is needed.

## **Service Signs Multi-Organization Agreement to Restore Wisconsin Prairie**

### *Wisconsin Private Lands Office*

The Department of Defense, Wisconsin Department of Natural Resources, National Park Service, Forest Service, University of Wisconsin, The Nature Conservancy, The Prairie Enthusiasts, Sayuk County Natural Beauty Council, International Crane Foundation, Pheasants Forever, and the Aldo Leopold Foundation have entered into a Memorandum of Understanding to restore prairie and savanna habitats on the Badger Army Ammunition Plant in Sauk County, Wisconsin. Badger is the site of the former Sauk Prairie of Wisconsin. It is an historically, and geologically significant area of the state that links the Wisconsin River with the Baraboo Hills and the Devil's Lake State Park. Restoration of the area is anticipated to take several years. **3/98**

## **Service Attends 1998 Wisconsin Aquaculture Conference**

### *LaCrosse Fish Health Center*

Richard Nelson, Project Leader, LaCrosse Fish Health Center (Onalaska, Wis.) attended the Wisconsin Aquaculture Advisory Board Committee Meeting on March 12, 1998 in Eau Claire, Wis. On March 13-14, 1998, Richard Nelson and Myron Kebus (DVM, WAVS) conducted a joint workshop on Fish Health Management at the Wisconsin Aquaculture Conference in Eau Claire. Fish health brochures and books were available and question and answer sessions were held. Approximately 500 people attended. **3/98**

### **Hatchery Participates in Crawford County Career Fair**

#### *Genoa National Fish Hatchery*

Crawford County, Wisconsin, held a career fair for high school sophomores in the three school districts in the county. The Genoa National Fish Hatchery was asked to participate to present career opportunities within the Service. Over 500 students participated in the career fair. **3/98**

### **More Than 1,500 Fish Screened for Diseases in February**

#### *LaCrosse Fish Health Center*

The LaCrosse Fish Health Center received and processed over 1,500 fish, representing 31 separate lots, during the month of February 1998. Casework included screening lake trout from three federal hatcheries (Iron River, Pendill's Creek and Jordan River) for Bacterial Kidney Disease and screening wild fish at the Castalia State Fish Hatchery for Infectious Pancreatic Necrosis Virus. Bloater Chubs from Lake Huron were also shipped to the Center by Mark Ebener, Chippewa/Ottawa Treaty Fish Management Authority, for a complete diagnostic examination. **2/98**

### **Health Assessments Completed at Genoa National Fish Hatchery**

#### *LaCrosse Fish Health Center*

Ken Phillips and Chelsea Berg completed a fish health quality assessments on one lot of Rainbow trout at the Genoa National Fish Hatchery on March 9, 1998. Suzanne Woolley and Audrey Dikkeboom completed the semi-annual disease inspection at the Genoa National Fish Hatchery on March 10, 1998. Disease samples will be processed in the laboratory and the final lab results available in approximately three to four weeks. **3/98**

### **Mussel Broker Fined for Illegal Shell Trade**

#### *Peoria Law Enforcement Office*

A California man who sold shells of freshwater mussels taken in Illinois waters without a license was fined \$5,000 and ordered to pay an additional \$2,500 for cost of a mussel dealer's license. The broker, Michael David Venovich, brokered the purchase and export of 34,000 pounds of mussel shells to Japan where they were sold for more than \$67,000. Because the mussels were not purchased legally and were shipped out of Illinois, the activity was a violation of the Lacey Act. **12/97**

### **Senator Feingold's Regional Coordinator Visits Hatchery**

#### *Genoa National Fish Hatchery*

Matthew Nickolay, Regional Coordinator for Senator Russ Feingold's office, visited the Genoa National Fish Hatchery to learn about the hatchery. He toured the facility, learned about the role the hatchery plays in the Service's fisheries priorities, and met the hatchery personnel. This was the first time he has visited the hatchery and wanted to become familiar with the various federal facilities in his region. **2/98**

### **Necedah National Wildlife Refuge Constructs New Pool**

#### *Necedah National Wildlife Refuge*

Necedah staff operated equipment (dozers, backhoes, dump trucks) to develop a new pool on the Necedah National Wildlife Refuge, Egret Pool, which will restore 45 acres of drained wetlands. The water control donated by Wisconsin Waterfowl Association will enable staff to manipulate water levels to achieve optimum waterfowl habitat during spring and fall migrations. **10/98**

### **Former CCC Tree Plantation Thinned on Necedah Refuge**

#### *Necedah National Wildlife Refuge*

Necedah National Wildlife Refuge staff and the Wisconsin Conservation Corps members marked trees to be cut, cruised, and tallied the total stumps to be harvested. A local forest product buyer entered the highest bid for the 50-acre plantation thinning. The historic plantation was showing signs of stress from insects and high stand density. The thinning will allow further growth of healthier trees, providing a unique visual experience for the visiting public to walk beneath some of the Refuge's largest trees. **1/98**

## **Service and Partners Team up to Implement Wetland Reserve Program**

### *Leopold Wetland Management District*

The cooperative effort to implement the U.S. Department of Agriculture's Wetland Reserve Program at Leopold Wetland Management District was a success. The first - ever implementation involved the cooperation of the U.S. Fish and Wildlife Service, Natural Resource Conservation Service and the Wisconsin Waterfowl Association (WWA). With WRP Biologist Sean Sallman, on board for only seven months, 74 landowner contacts were made. Of these contacts, seven elected to sign a 30-year or perpetual easements, 10 enrolled in Conservation Reserve Program, two had projects completed through Partners for Wildlife, and 28 were eligible for the 10 - year program. To date, seven wetland basins have been restored covering 41.5 acres. Sallman is employed by the WWA, and works out of the Leopold WMD office and uses a Service vehicle and equipment. 3/98

## **Wisconsin Wetland Reserve Partnerships Reaps Benefits**

### *Wisconsin Private Lands Office*

In cooperation with Natural Resource Conservation Service and the Wisconsin Waterfowl Association, the Service Wetland Reserve Program (WRP) partnership contacted 147 landowners in 21 counties of eastern Wisconsin from June through December 1997. The contacts resulted in 72 active WRP projects totaling more than 1,500 acres of wetlands and upland nesting cover. The projects are in various stages of planning. It is hoped that most will result in completed wetland restorations during the 1998 construction season. Funding is being provided by Natural Resource Conservation Service and the U.S. Fish and Wildlife Service offices in Madison and Mayville, Wisconsin. Wisconsin Waterfowl Association is administering the Natural Resource Conservation Service funds. 1/98

## **305-Acres Added to Gregory Landing Division at Mark Twain Refuge**

### *Mark Twain National Wildlife Refuge*

After clearing several hurdles the 305-acre Logsdon tract has been acquired as part of the Gregory Landing Division. The Division now totals 2,100 acres. The tract included a 171-acre Wetland Reserve Program (WRP) easement. Refuge staff provided critical technical assistance on a 70-acre wetland restoration project completed as part of the WRP contract prior to

Service acquisition. The tract has good potential for other diverse habitat restoration including bottomland forest and warm season native grasses. A small levee may also be removed restoring flood plain hydraulic functions to 130 acres of the Fox River. Although not large, the 2,000-acre Gregory Landing Division is significant because it is located along a portion of the Mississippi River that is heavily degraded and lacking in protected forests and wetlands. 1/97

## **Annada District Participates in Eagle Days Events**

### *Mark Twain National Wildlife Refuge*

Staff from the Annada District participated in the annual Eagle Days celebration held in the city of Clarksville the weekend of January 23 - 25, 1998. A bald eagle display was viewed by 1,500 fourth and fifth graders, teachers, and parents. 1/98

## **Keynote Address Presented to Wisconsin Chapter, American Fisheries Society**

### *Large River Fisheries Coordination Office*

Jerry Rasmussen presented one of two keynote addresses to the Wisconsin Chapter of the American Fisheries Society annual meeting in Eau Claire. He presented a paper he first presented at the 1996 annual meeting of the American Fisheries Society in Dearborn, Michigan. The paper entitled "Forty Years of Controversy and Achievement in North American Fisheries — Riverine Fisheries" describes some of the impacts man has had on riverine resources; current thinking in riverine fisheries resources management; and actions to offset man's impacts and return our rivers or portions of their flood plains to a more natural state. The theme of the statewide meeting was riverine ecology and management. 1/98

## **Special Muzzleloader Deer Hunt on Delair Division**

### *Mark Twain National Wildlife Refuge*

Forty - seven hunters participated in the three - day hunt held Jan. 9 - 11, 1998. Seventy-two deer were harvested. This is the third year of full participation in the hunt. The harvest is needed to keep the deer population from overpopulating and damaging crops and other resources both on and around the refuge. 1/97



### **LaCrosse River Eagle Watch a Success**

#### *Upper Mississippi River National Wildlife and Fish Refuge*

The Eagle Watch was held December 20 - 21, 1997, and January 3 - 4, 1998. This was the first organized Eagle Watch held in the LaCrosse, Wisconsin area. More than 400 people who participated in the event, which was advertised in several local newspapers, and given top billing on two local television broadcasts after the opening day. The event was made possible through a Service Challenge Cost Share which was used to purchase equipment needed for the event. **1/98**

### **Agencies Negotiate Hydroelectric Projects on Lower Chippewa River**

#### *Green Bay Field Office*

The Service and Wisconsin Department of Natural Resources began settlement negotiations with Northern States Power Company relative to a system-wide evaluation of six hydroelectric (hydro) projects on the lower Chippewa River. Three of the hydro projects are currently up for relicensing through the Federal Energy Regulatory Commission. The other three projects have been licensed by the Commission since the early 1980s. The proposed settlement agreement will encompass approximately 110 miles of the lower Chippewa River and result in resolution of several complex issues such as hydro system operations (e.g., discharge flows, water level fluctuations, and reservoir drawdowns), water quality certification, fish entrainment, land management and recreational use. Negotiations are expected to take one to two years before an agreement can be signed. **12/97**

### **Wisconsin Offices Awarded \$520,000 for Private Lands Habitat Restoration**

#### *Wisconsin Private Lands Office*

Service field stations in Wisconsin have been awarded \$88,900 through the Service Challenge Cost Share Program. This funding will be matched by \$440,000 from many partners. The funds will be used to restore an estimated 1,200 acres of wetlands, grasslands, and stream habitat on private lands in the state. The funds will be used by the stations as part of the Service's Partners for Wildlife Program which has restored over 7,000 acres of wetlands and other important habitats in the state. **12/97**

### **Horicon Marsh Receives Water Quality Monitoring Stations**

#### *Horicon National Wildlife Refuge*

In an effort to learn more about the water quality around the Horicon Marsh, three monitoring stations were installed by the U.S. Geological Survey. Numerous partners made this project a reality. Flow velocity and depth is being measured and water samples taken and analyzed to determine the quantity of phosphorous and sediment entering the marsh. The quality of the water leaving the marsh is also being determined. **12/97**

### **Sixteen Deer Taken During Hunt at Trempealeau National Wildlife Refuge**

#### *Trempealeau National Wildlife Refuge*

The Trempealeau Refuge held a deer hunt coinciding with Wisconsin's gun deer hunt at the end of November, 1997. Sixty permits were sold to persons interested in hunting on the refuge. During the opening weekend, 16 deer (nine bucks, seven does) were registered on the refuge. Two volunteers staffed the registration station. An estimated thirty permit holders hunted on the refuge during the nine-day season. The hunt serves to manage deer population levels on the refuge. **11/97**

### **Refuge Surpasses Wood Duck Banding Quota**

#### *Upper Mississippi National Wildlife and Fish Refuge*

District staff banded 257 wood ducks during a two-week period in August, surpassing the District's quota by 157 birds. Due to construction projects at Trempealeau National Wildlife Refuge, its staff was unable to band this year. District staff continued banding to achieve Trempealeau's quota. **9/97**

***District staff banded 257 wood ducks during a two-week period in August...***

**- Upper Mississippi River  
National Wildlife and  
Fish Refuge**

### **Paddlefish Eggs Used in International Caviar Trade**

#### *Large River Fisheries Coordination Office*

At the request of the Service's Washington, D.C. office, the Large River Fisheries Coordination Office prepared a summary of actions taken by the Mississippi Interstate Cooperative Resource Association (MICRA) and the states in response to the expected increase international sale of paddlefish eggs. The eggs are being used as surrogates for sturgeon eggs in the making of caviar. The issue was escalated during the year by a three metric ton permit application received by the Service to export paddlefish eggs from Kentucky to Japan. Sturgeon populations worldwide are under intense fishing pressure since the dissolution of the Soviet Union. International action was taken by the CITES in June to severely restrict the export of sturgeon and paddlefish eggs worldwide. This is expected to pressure North American populations of paddlefish and sturgeon to support the domestic caviar industry. The U.S. is by far the largest importer of caviar. MICRA is currently considering closing the commercial fisheries for both sturgeon and paddlefish. **12/97**

### **Final Water Level Goals Set for Finger Lakes**

#### *Upper Mississippi National Wildlife and Fish Refuge*

A six-year multi-agency study was concluded in November, 1997 providing the Winona District with target flow rates for the water control structures on Clear, First, Second, and Third Lakes located in Pool Five of the Mississippi River. Management of the new water control structures, built under the Environmental Management Program, is expected to improve winter fish distribution and survival in the Finger Lakes, a major backwater area. **11/97**

### **Riecks Lake Observation Deck Draws Visitors**

#### *Upper Mississippi National Wildlife and Fish Refuge*

During the fall of 1997, more than 14,000 visitors from 40 states and 20 foreign countries visited the Riecks Lake observation deck near Alma, Wisconsin, to observe tundra swans, Canada geese and other waterfowl. A cadre of Refuge volunteers with the Alma Swan Watch hosted the platform, answering questions and providing interpretive material. **11/97**

### **Cache River Field Outing Attracts Hundreds**

#### *Cypress Creek National Wildlife Refuge*

The Illinois Geological Survey sponsored the field outing in the Cache River Watershed. The Refuge and other Joint Venture partners coordinated tour spots. The program was part of an annual schedule of trips in Illinois that highlight geology, landscape, and natural resources. The trip in the Cache River Wetlands attracted 250 individuals of all ages. The all-day trip was a car caravan tour of the diverse bald cypress and tupelo gum swamps, bottomland forests, and rolling uplands surrounding the Cache River. Participants were from Wisconsin, Illinois, Missouri, Kentucky, and Indiana. Staff discussed geological, biological, and historical significance of the area. **11/97**

### **National Wildlife Refuge Week Open House Celebration**

#### *Agassiz National Wildlife Refuge*

Agassiz National Wildlife Refuge celebrated National Wildlife Refuge Week and Agassiz's 60<sup>th</sup> anniversary with an open house at the Refuge October 12, 1997. Food and refreshments were served during the open house. Videos on waterfowl and moose were shown continuously. Despite cold and windy weather, the open house was considered a success. Open house was celebrated to give National Wildlife Refuges more recognition and to educate the public on natural resources. **10/97**

### **Horicon Marsh Refuge Named Globally Important Bird Area**

#### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge staff were notified on October 1, 1997, that the Horicon Marsh was accepted as a Globally Important Bird Area in American Bird Conservancy's United States Important Bird Areas program. This nomination was a cooperative effort with the Department of Natural Resources, which manages the southern one-third of the Horicon Marsh. The marsh was accepted for this recognition for several reasons, one being that more than 30 percent of the Mississippi Flyway Canada geese migrate through the marsh during the fall, and approximately two - percent of the bio-geographic population of mallards migrate through during the fall with impressive numbers of other waterfowl. **10/97**

## **Millions of Fish Produced at Chautauqua Refuge**

### *Illinois River Refuges*

As part of an on-going Environmental Management Program project, fisheries biologists with the Long-Term Resource Monitoring Program (LTRM) sampled the Wasenza Pool to estimate fish production on this 2,000-acre unit of Chautauqua National Wildlife Refuge. Using both small mesh hoop nets and plankton nets, LTRM personnel were able to estimate numbers of fish escaping the pool and entering the Illinois River system. Fish production in and subsequent escapement from the Wasenza Pool was estimated to range from 18 million to 27 million fish, depending on sampling method. Thirty-four taxa of fish were captured with shad, minnows, and suckers the most abundant. Game fish species such as white bass, bluegill, catfish, and crappie were also documented leaving the pool. **11/97**

## **Biking, Hiking Part of National Wildlife Refuge Week on the Cache River**

### *Cypress Creek National Wildlife Refuge*

In celebration of National Wildlife Refuge Week, Cypress Creek National Wildlife Refuge, Joint Venture Partners, and Hostelling International sponsored a three-day event with the Cache River Watershed. Participants took part in bicycling through the Refuge and surrounding area, canoeing on the Cache during peak fall colors, and hiking along upland bluffs of the Cache River State Natural Area. Multiple bicycle routes were available for riders ranging from 25 to 100 miles. Due to the success of this event, it will take place annually and will originate from the Refuge Office in Ulin, Illinois in 1998. **10/97**

## **Teachers Explore Cache River Wetlands**

### *Cypress Creek National Wildlife Refuge*

Forty teachers from schools in the Cache River Wetlands participated in guided outings. The guided trips provided teachers an opportunity to explore ancient cypress/tupelo swamps and learn about resource issues, native wildlife/habitat and educational resources available through the Cache River Wetlands Joint Venture partners. Staff lead hikes to Heron Pond which highlights floodplain forest along the Cache and a pure stand of bald cypress trees over 300 years old. Participants also explore the swamp by canoe to view the 1,000 year old state champion bald cypress, Eagle Pond, and wetland wildlife and habitat. **10/97**

## **Golf Professionals Plead Guilty in Geese Shooting Incident**

### *Des Moines Law Enforcement Office*

Service special agents worked with Iowa Department of Natural Resources Conservation officers to apprehend two golf course employees for killing geese at Legion Golf Course in Marshalltown, Iowa. The two, both course professionals, shot the geese with a rifle because they considered the geese to be nuisance to golfers using the course. Both were prosecuted and paid fines in the case. There was much public support for the prosecution of the case. **11/97**

## **Horicon Refuge Staff Bands 431 Mallards**

### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge and Leopold Wetland Management District staff banded 431 mallards. The Refuge quota is 400 mallards. Many volunteers, including the Wisconsin Conservation Corps, assisted in this project, contributing over 100 hours to the project. **10/97**

## **New Staff at Horicon Refuge for Visitor Center**

### *Horicon National Wildlife Refuge*

Five employees were added to the Refuge staff. Their main job is staffing the visitor center on busy weekends during the fall. With their help, and help of volunteers, the visitor center has been open every weekend during the fall. Over 1,000 people on a typical fall day are now able to visit with staff, ask questions, view the exhibits, enjoy the deck and spotting scopes, and spend money at Coot's Corner **10/97**

## **Refuge Cleans-Up Newly Acquired House Sites**

### *Cypress Creek National Wildlife Refuge*

Since the Refuge has an active land acquisition program, clean-up work and site restoration is an ongoing process. Once property is acquired from willing sellers, Refuge staff remove buildings and restore old house sites to native habitat. This year staff removed 6 houses and outbuildings, and fill 6 wells and sisterns within the Refuge boundary. **3/98**

### **Refuge Boundary Gets New Trees**

#### *Upper Mississippi River National Wildlife and Fish Refuge*

Encroachments along the refuge boundary at Peterson Lake Mowing and tree cutting over the years has resulted loss of vegetation along the Upper Mississippi National Wildlife Refuge boundary at Peterson Lake. Some trees have also been lost to disease and age. This loss of vegetation has caused breaks in the natural screening of private homes from visitors using the river. A variety of tree and shrub species were planted in an attempt to reclaim these border areas. **4/98**

### **Lead Poisoning Causes Bald Eagle Death**

#### *Mark Twain National Wildlife Refuge*

Forensic examiners at the U.S. Geological Survey Health Lab in Madison, Wis., determined that a bald eagle found dead in January 1998, died from lead poisoning after it ingested shotgun pellets. The bird was found dead in Henry County, Iowa, and turned over to Iowa Conservation Officer Les Nieland. Nieland brought the eagle to the Mark Twain National Wildlife Refuge, Wapello District Office, which forwarded it to the Madison lab. The results of the examination, released in May, determined the eagle ingested lead shot and died of lead poisoning. A news release was issued to 17 local radio and newspapers. **4/98**

### **Horicon Refuge Celebrates Earth Day**

#### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge celebrated Earth Day via participation in four different events on the marsh and in the local community. About 300 people attended the events, which involved more than five partners. Events included opening Old Marsh Road for hiking and biking, April 18, 19; opening the Visitor Center, April 18; dedicating and opening the new Bud Cook Hiking Area, April 22; and providing materials and guided activities for the Beaver Dam Ecumenical Group's Earth Day Service, April 26. Media coverage and community interest was excellent throughout. **4/98**

### **Wapello District's Burning Season Totals 330 Acres**

#### *Mark Twain National Wildlife Refuge*

During April, the District staff of the Mark Twain National Wildlife Refuge enhanced 330 acres of native prairie plant species through prescribed burning. In an attempt to help the prairie plant species compete with the non-native and undesirable species, burns were conducted at the

Louisa and Horseshoe Bend divisions of the District. Initially, 1,330 acres were scheduled to be burned; however, moist conditions restricted activities to 330 acres. **4/98**

### **Volunteers Clean-up Trempealeau National Wildlife Refuge**

#### *Trempealeau National Wildlife Refuge*

Seven volunteers from a Calgary of God Church in LaCrosse, Wis., worked on the refuge on April 25, 1998, replacing signs and sign posts, painting, picking up litter, mowing grass, planting grass seed, and washing vehicles. The improvements to the refuge will enhance the experience of the visiting public. **4/98**

### **Friends Group Landscapes Around New Refuge Office**

#### *Trempealeau National Wildlife Refuge*

On April 25, 1998, the Bob Pohl Chapter of the Upper Mississippi River Refuges Friends group landscaped the area around the new office at Trempealeau Refuge. They seeded about a half acre into native grasses and wildflowers and planted wild plum and choke berry around some of the structures needed for facility operation. They also helped place stone around the building that will act as a fire break when burning the grasses. **4/98**

### **Necedah National Wildlife Refuge Prescribe Burns 3,716 Acres**

#### *Necedah National Wildlife Refuge*

Necedah burned 15 units, or 3,716 acres, during April. The station-sponsored Wisconsin Conservation Corps assisted in two of the burns. Two newly restored Barrens areas totaling 242 acres were part of the burn accomplishments. Four individuals from the Wisconsin Department of Natural Resources, Sandhill Unit, also helped for a day. **4/98**

### **Necedah Assists Washington Migratory Bird Office With Woodcock Survey**

#### *Necedah National Wildlife Refuge*

Refuge Operations Specialist Trudeau participated in the national woodcock singing ground surveys on April 30, 1998. Four woodcock were heard along route 79 near big Flats in Adams County, Wis. **4/98**

## **Rock Island ES Creates GIS Database to Track Superfund Progress**

### *Rock Island Field Office*

The Rock Island Field Office created a Geographic Information System (GIS) database to track the progress of Superfund and Oil Pollution Act sites with which the Rock Island Office is currently involved. The system includes wetland inventory maps and other map coverages linked to a database with information for each site. Partners include the Illinois Environmental Protection Agency and Illinois Department of Conservation. **5/98**

## **Thousands of Prairie Forbs Planted on Mississippi Island**

### *Upper Mississippi National Wildlife and Fish Refuge*

District and headquarters staff joined forces with the Friends of the Mississippi and other volunteers to plant several thousand prairie forbs on sand disposal sites on Mississippi River islands that had previously been reclaimed with fines and planted to native warm season grasses as a part of the EMP program. Forbs were planted on Crats Island, Buffalo County, Wis., Grand Encampment Island and Finger Lakes disposal site, Wabasha County, Minn. In addition, several hundred forbs were planted on the Lofgren tract, Wabasha County, a recently donated tract. **5/98**

## **New Parking Area Constructed on Winona District**

### *Upper Mississippi National Wildlife and Fish Refuge*

A five-space parking area was constructed by district staff on the Przbylski tract, a newly acquired tract that provides access to Upper Mississippi and Trempealeau National Wildlife Refuge lands. The site provides a safe parking area for visitors using the refuges. The site was graveled and a boundary of eight-foot by eight-foot barrier posts defines the lot. Several loads of black dirt were hauled in and spread on the outside border of the lot. Finally, the black dirt was seeded and a variety of tree and shrub species was planted. **5/98**

## **University Plants Trees on Trempealeau National Wildlife Refuge**

### *Trempealeau National Wildlife Refuge*

Trempealeau Refuge partnered with the University of Wisconsin - Eau Claire to provide a service-learning project for 13 students. The students learned about the refuge system mission and the management and public use programs

occurring at the refuge. In exchange, the students planted 375 tree seedlings provided by the National Tree Trust in an area the refuge is returning to bottomland hardwoods. **5/98**

## **Student "Job Shadows" Visit Wapello District Staff at Mark Twain Refuge**

### *Mark Twain National Wildlife Refuge*

On May 4, 1998, two Waco Jr. High School students job shadowed Wapello District staff of the Mark Twain National Wildlife Refuge. The students were exposed to an orientation on the National Wildlife Refuge system and careers in the Service. They also participated in moist soil management, at the Louisa Division and tree planting, wetland restoration, native prairie restoration at the Horseshoe Bend Division. **5/98**

## **Prairie Shoreline Stabilized on Polander Lake Island**

### *Upper Mississippi National Wildlife and Fish Refuge*

Winona District and Headquarters staff spent a day on the Mississippi River stabilizing 250 feet of shoreline on an island in Polander Lake near Winona, Minn. A portion of the island that was a former sand disposal area had been planted to native warm season grasses as a part of the Polander Lake Habitat Rehabilitation Project. The shoreline suffered severe erosion during 1997 spring flooding. Staff staked and wired coconut fiber logs along the shoreline and planted over 2,000 willow cuttings on the shoreline side of the logs. In addition, the group planted several hundred prairie forbs in the prairie. **5/98**

## **Beetles Released to Control Purple Loosestrife**

### *Horicon National Wildlife Refuge*

The last of the wintering Galerucella beetles were released into the new rearing screen tent on May 6, 1998. An estimated 750 beetles wintered outside in last year's rearing pots and 608 beetles wintered in a refrigerator. Several partners were involved in potting up the 170 pots of purple loosestrife needed to rear the beetles. Beetles reared in 1998 will be released at several sites on Horicon National Wildlife Refuge, on the Wisconsin DNR end of the marsh, and on the Rock River by the Waupun High School to control the spread of purple loosestrife in Horicon Marsh. **5/98**

## **Horicon National Wildlife Refuge Celebrates International Migratory Bird Day**

### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge celebrated International Migratory Bird Day via participation in several events of the Horicon Marsh Bird Festival, May 8, 9, and 10, 1998. About 2,000 people attended the weekend activities, and several partners were involved in this collaborative effort. Refuge events included release of trumpeter swans back to the marsh (a media event,) a reception for local winners of the Wisconsin Federal Jr. Duck Stamp contest, guided bird hike, "Wild Things" activities for kids at the Environmental Education Barn, and having the Visitor Center open for the weekend. **5/98**

## **Wisconsin Waterfowl Association Distributes Seed at Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

Members of the public ordered various types of wildlife food and cover crop seeds - 253 bags of corn, sunflower, sorghum, and sudan seed, totaling 11,375 pounds. The seed was transported to the Necedah National Wildlife Refuge, where Wisconsin Waterfowl Association volunteers distributed it to the public May 7-9, 1998. **5/98**

## **Refuge Hosts Winona County, Minnesota, International Migratory Bird Day**

### *Upper Mississippi National Wildlife and Fish Refuge*

The Whitewater Watershed was one of the featured destinations for Winona County's North American Bird Count on May 9, 1998, organized by the Service in cooperation with the Hiawatha Valley Audubon Club of Winona. With a few exceptions, the usual species were represented, but total numbers of birds observed were down from previous years, and this result seems to be consistent with reports from other areas -- additional information would be welcomed. **5/98**

## **Penny Hoeser Named Volunteer of the Year at Trempealeau**

### *Trempealeau National Wildlife Refuge*

Penny Hoeser was named Trempealeau Refuge's Volunteer of the Year for 1997. Penny contributed 360 hours during the year in various activities including staffing the observation deck, coordinating volunteers for the deck, leading school groups, collecting native grass seeds, and collecting breeding bird information on the refuge for Wisconsin's atlas. Penny's enthusiasm for the refuge is contagious. She has recruited many volunteers while talking to visitors and has

enhanced the refuge experience of many by opening eyes to the variety of plants and animals around them. **5/98**

## **Necedah National Wildlife Refuge Celebrates International Migratory Bird Week**

### *Necedah National Wildlife Refuge*

Refuge staff and volunteers coordinated 44 programs, reaching 2,477 students in 24 schools.. The volunteers contributed 12 hours. The presentations centered around the migration theme, including migratory birds, flights, and habitat needs. **5/98**

## **Ecosystem Team Tours Halfway Creek Watershed**

### *Upper Mississippi River National Wildlife and Fish Refuge*

The LaCrosse District continues to participate in the planning and implementation of the Halfway Creek/Sand Creek partnership. A briefing and tour was facilitated by LaCrosse District Manager, Jim Nissen. The briefing and tour was held for Region 3 Assistant Regional Director John Blankenship, Refuge Manager Jim Fisher, Field Supervisor Lynn Lewis and Twin Cities Field Office Biologist Dave Warburton, along with local and state officials and citizens. **5/98**

## **Wapello District Hosts Bike Ride**

### *Mark Twain National Wildlife Refuge*

On May 17, 1998, the Wapello District hosted an organized bike ride around the perimeter of the Louisa Division. Louisa County Conservation Board Naturalist, Julie Ohde, assisted with coordinating the event. Approximately 25 people attended the event. A Wapello District staff member was posted as an interpreter at the Refuge overlook located on the Division. Spotting scopes were set up for participants viewing use. **5/98**

***Refuge staff released four state endangered trumpeter swans in a joint effort between the U.S. Fish and Wildlife Service and Wisconsin Department of Natural Resources.***

**- Necedah National Wildlife Refuge**

## **Four Trumpeter Swans Released at Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

Necedah National Wildlife Refuge staff recently released four state endangered trumpeter swans on Rynearson Pool 2. The joint effort between the U.S. Fish and Wildlife Service and Wisconsin Department of Natural Resources aims to re-establish 20 nesting pairs of swans in Wisconsin. The program is in its final year of the 10-year reintroduction plan. Eggs were obtained from wild nests in Alaska, hatched in the Milwaukee Zoo, and the cygnets were raised at the General Electric Medical Systems Facility in Pewaukee, Wis. The release was attended by a newspaper reporter and the general public. Three media contacts and 11 news releases were sent out. **5/98**

## **Wapello District Staff Hosts 120 Students at Mercer County Field Day**

### *Mark Twain National Wildlife Refuge*

On May 19, 1998, refuge staff from the Wapello District of the Mark Twain National Wildlife Refuge gave a presentation on native prairies to 120 fifth graders at the Mercer County Field Day in Illinois. The Field Day is an annual event sponsored by the Mercer County Natural Resource Conservation Service. **5/98**

## **Necedah Sixth Graders Visit Refuge**

### *Necedah National Wildlife Refuge*

Clerk Rabuck presented programs to 49 sixth grade students and four chaperones and teachers on May 19, 1998. The class visited the Necedah National Wildlife Refuge after classroom studies in food chains, communities and populations. While at the Necedah National Wildlife Refuge, the students participated in activities that reinforced the concepts covered in class as well as activities that expanded on those topics. **5/98**

## **Minnesota - Upper Iowa River Watershed Partnership Launched**

### *Upper Mississippi River National Wildlife and Fish Refuge*

An interagency meeting was held on May 19, 1998, at Lake Louise State Park, near LeRoy, Minn., to discuss baseline information that is available or needed to support a recently formed citizens' effort to protect and restore the watershed of the Upper Iowa River. The Mower County Soil and Water Conservation District has hired a Geographic Information Systems specialist to assist on the project, and she has already produced a variety of base maps and

analytical maps combining various data sets available "off-the-shelf" from several sources, including National Wetland Inventory maps available from the U.S. Fish and Wildlife Service. The Natural Resources Conservation Service and Soil and Water Conservation District staffs from the Cresco, Iowa, field office will be invited to the next meeting. **5/98**

## **Fifth Graders Tour Mark Twain National Wildlife Refuge**

### *Mark Twain National Wildlife Refuge*

As part of the Louisa County Conservation Board Historical Field trip, 17 enthusiastic fifth graders from Morning Sun School visited the Wapello District of the Mark Twain National Wildlife Refuge on May 20., 1998. Due to thunderstorms, the children occupied the conference room where they learned about the refuge, eagles, and other endangered and threatened species. **5/98**

## **Necedah National Wildlife Refuge Completes Eau Claire Wetland and Prairie Project**

### *Necedah National Wildlife Refuge*

The Service, Wisconsin Department of Natural Resources and private landowners are part of a joint effort to restore 3.5 acres of wetland and eight acres of native prairie in Eau Claire County. The Wisconsin DNR made initial landowner contacts and surveyed the restoration site. It also cleared construction area with Diggers Hotline and the state historical society. Service staff transported and operated equipment to construct a 90-foot dike that blocked an existing drainage ditch and restored hydrology to 3.5 acres of wetland. The two landowners were involved in the restoration under Wildlife Management Agreements with the Service. The upland area (8 acres) adjacent to the restoration site was seeded with native prairie grass under a cooperative agreement between the landowners and Natural Resources Conservation Service. **5/98**

## **Necedah National Wildlife Refuge Celebrates National Fishing Week**

### *Necedah National Wildlife Refuge*

National Fishing Week celebration on the Necedah National Wildlife Refuge was held beginning at 9 a.m. May 30, 1998, with a children's casting contest. A presentation of electro fishing and other research tools was given by Val Hyde from the Service's LaCrosse Fishery Resource Office. Free lunch was donated by area businesses. After lunch, a seminar on muskie fishing was given by a refuge volunteer targeting adults and a fish adaptation program targeting children was given by refuge staff. Door prizes and the casting and fish art prizes were all donated by area sporting goods shops. This will be an annual event. Eight media releases were sent prior to the event. **5/98**

## **Third Bald Eagle Nest Discovered at Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

A third bald eagle nest was observed in the Sprague-Mather Flowage in April. The nest site is northwest of Dam 30 and is visible from the Sprague dike and also from a section of the auto tour route which passes between Goose Pool and West Sprague Pool. This is the third eagle nest built on the Necedah National Wildlife Refuge since 1995 and appears to be used by the same pair of eagles that initiated the two previous nests. **5/98**

## **West Salem Elementary Students Visit Trempealeau National Wildlife Refuge**

### *Trempealeau National Wildlife Refuge*

Three hundred eighty students from West Salem Elementary visited the refuge during four days in May to learn about the refuge, its mission, habitats, and wildlife. Refuge staff and volunteers taught the students about birds, mammals, aquatic invertebrates, and reptiles and amphibians. **5/98**

## **Upper Mississippi Refuge Helps Plant 200 Acres to Native Grasses**

### *Upper Mississippi River National Wildlife and Fish Refuge*

District staff cooperated with Natural Resources Conservation Service to plant native warm season grasses and forbs on 200 acres of Conservation Reserve Program and private lands during spring 1998. Winona District provided a tractor, dump truck with trailer and a maintenance worker, Steve Erickson, to complete the seedings. A Truax No-Till Drill that was acquired with

Challenge Grant funds in 1997 was used to seed the sites. Trempealeau National Wildlife Refuge and LaCrosse Districts provided staff to help Erickson with seedings in their counties. In addition, they helped with travel costs for Erickson and with fuel for the tractor and dump truck. **6/98**

## **Whitewater Watershed Plan Approved and Funded**

### *Upper Mississippi River National Wildlife and Fish Refuge*

On President's Day, February 16, 1998, Congressman Gil Gutknecht chaired the signing ceremony of the Whitewater Watershed Integrated Management Plan, under U.S. Department of Agriculture's PL 566 program and the Environmental Protection Agency's PCA - funded Clean Water Partnership. About \$1 million annually will be provided for soil, water, fish and wildlife conservation over the next five years. **6/98**

## **Horicon Refuge Celebrates National Fishing Week**

### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge hosted another successful fishing clinic in celebration of National Fishing Week. More than 130 - third, fourth, and fifth graders, parents and teachers participated from Marysville Wis. Middle School and St. John's Lutheran School in 10 Pathways to Fishing learning stations and an afternoon of fishing on the marsh. Marysville Mayor Richard Gudex signed a proclamation and addressed the youth. The Marysville News covered the event locally. **6/98**

## **60 Acres of Louisa Division Treated to Halt Maple and Cottonwood Saplings**

### *Mark Twain National Wildlife Refuge*

On June 6, 1998, 60 acres of moist soil habitat on the Wapello District of the Mark Twain National Wildlife Refuge was treated with Garlon to control the invading maple and cottonwood saplings. The tree invasion has steadily increased following the floods in 1993. **6/98**



## **Necedah National Wildlife Refuge Attends ARK Workshop**

### *Necedah National Wildlife Refuge*

Refuge Operations Specialist Trudeau represented Necedah National Wildlife Refuge at the ARK workshop in LaCrosse, Wis. The purpose of the ARK program is to assist in establishing groups that will help build strong community support for National Wildlife Refuges, assist in outreach, volunteerism, education, and political activism. Each of the refuges represented gave an overview of their refuge, threats, conflicts, and issues that could be addressed through the ARK campaign. **6/98**

## **Upper Mississippi Refuge Hosts Fishing Day For Disabled Kids, Adults**

### *Upper Mississippi River National Wildlife and Fish Refuge*

Service staff from Refuge headquarters, Winona and LaCrosse Districts, Trempealeau National Wildlife Refuge, Regional Sign Center and Fisheries Resources joined forces with a group of partners to provide a day of fishing for 50 children and 30 adults with disabilities. Partners donated \$2,500 of fishing equipment and food to help make the day a success. County Market and Econo Foods donated 100 new rods and reels which will be used for future Fishing Days events. In addition, County Market prepared the food that was donated by the Friends of the Upper Mississippi. Trout Unlimited sponsored 20 youths for a morning of fishing at a local trout pond. St. Mary's University donated the use of its pontoon boat. Several individual volunteers provided personal boats and their time to take kids fishing. The Friends groups served a lunch of hot dogs and sloppy joes with drinks donated by Coca Cola **6/98**

## **Mississippi Conservation Video Wins First Place Award of \$4,000.00**

### *Upper Mississippi National Wildlife and Fish Refuge*

"The Mighty Mississippi - A Balance of Integrity," an educational video produced by the Upper Mississippi River Conservation Committee, won a first prize of \$4,000 in the recent Academy of Science of St. Louis' Mississippi River Multimedia Climate Competition. The video was cited for being a well-planned, high-quality production that conveyed a clear message about the need for conservation of the river's natural and recreational resources. The video was produced as a collaborative effort by natural resource professionals, state natural resource agencies and UMRCC Coordinator Jon Duyvejonck. The

competition was held in conjunction with the 1998 Mississippi River Climate Conference. **6/98**

## **Native Grass Seeding at Horicon National Wildlife Refuge**

### *Horicon National Wildlife Refuge*

Horicon National Wildlife Refuge staff recently completed planting about 30 acres of Refuge uplands to native grasses and forbs. For the second year, the Wisconsin Department of Natural Resources contributed \$2,500 worth of native grass seed and forbs as part of the Challenge Grant program. In addition, assistance was provided by Leopold Wetland Management District. **6/98**

## **4-H Club Visits Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

A 4-H club from the Black River Falls, Wis., area visited the Necedah National Wildlife Refuge on June 12, 1998. The 11 members, aged 2-14, and three leaders were given a 1.5- hour program on migration, its hazards and how seasonal migration can impact endangered animal populations, i.e. whooping cranes. The club was also treated to a short demo of a live gravid massasauga rattlesnake by Biologist King. **6/98**

## **75 Acres of Prairie Enhanced on Horseshoe Bend**

### *Mark Twain National Wildlife Refuge*

By June 15, 1998, approximately 75 acres of native prairie on the Horseshoe Bend Division of the Wapello District of Mark Twain National Wildlife Refuge was enhanced through properly timed mowing. The mowing was primarily completed through the assistance of Service certified volunteers. **6/98**

## **15 Acres of Prairie Restored at Horseshoe Bend**

### *Mark Twain National Wildlife Refuge*

On June 20, 1998, 15 acres of native prairie was planted by Wapello District staff of the Mark Twain National Wildlife Refuge on the Horseshoe Bend Division. The planting was made possible through the assistance of Louisa County Conservation Board's drill. **6/98**

## **Service Part of Effort to Identify Environmentally Sensitive Areas**

### *Marion Sub Office*

The Oil Pollution Act of 1990 requires the Environmental Protection Agency and Coast Guard to prepare spill contingency plans for the entire country and mandated the documentation of spill-sensitive resources and potential spill sources. The Upper Mississippi River Basin Association (UMRBA) recently initiated an effort to identify and map sensitive resources and potential spill sources along the Middle Mississippi River (Open River) and develop a spill response atlas with this information. The Fish and Wildlife Service participated in an interagency meeting to provide information concerning important fish and wildlife resources, including threatened and endangered species, and important habitats located in this reach of the Mississippi River to the UMRBA. The Service also provided an in-depth review of information in the draft Spill Response Atlas and worked with the U.S. Geological Survey to ensure its accuracy. This document will be an important tool for local planners to utilize in responding to spills. **6/98**

## **Rice County Waterfowl Production Area Tract Approved**

### *Minnesota Valley National Wildlife Refuge*

The 96.5 acre Waterfowl Production Area (WPA) will be managed by Minnesota Valley National Wildlife Refuge. The purchase was approved by the Rice County Commissioners and subsequently by the State Land Exchange Board. The WPA is adjacent to a 184-acre Robert Lick Wildlife Management Area, south of Lonsdale, Minn. The WPA will provide critical nesting habitat for migratory waterfowl and many other species of song birds. **6/98**

## **115 Acres of Upland Enhanced at Horseshoe Bend**

### *Mark Twain National Wildlife Refuge*

Wapello District staff and volunteers enhanced 115 acres of upland habitat on the Horseshoe Bend Division of the Mark Twain National Wildlife Refuge. A total 100 acres was mowed to control various thistle species, and 15 acres of milo was planted to prep a fallow field infested with pest plant species. Next year, the milo field will be planted to native prairie. **7/98**

## **Horicon National Wildlife Refuge Hosts Wetlands Workshop**

### *Mark Twain National Wildlife Refuge*

Horicon National Wildlife Refuge staff and volunteers hosted a Marsh Madness Wetlands Workshop in partnership with the Wisconsin Department of Natural Resources on July 16, 1998. Refuge staff provided hands-on activities and information on available resources at the marsh, including field trips sites, videos, trunks, and educational programs. Many positive comments were received about the workshop. **7/98**

## **Refuge Releases Beetles to Control Purple Loosestrife**

### *Horicon National Wildlife Refuge*

Approximately 30,000 *Galerucella* beetles have been released on Horicon Marsh. The beetles were reared by Refuge staff from about 1,500 overwintered beetles. The Wisconsin Department of Natural Resources were given 8,500 beetles for release at the State end of the marsh. The remainder of the beetles were released at three sites on the Federal end of the marsh. Collection of beetles started June 26, 1998 and ended July 16, 1998. **7/98**

## **Michael Creek Restoration Completed**

### *Mark Twain National Wildlife Refuge*

Following the completion of the Michael Creek restoration project, six acres of native prairie were seeded by Wapello District staff. The prairie provides bank stabilization and upland restoration. **7/98**

## **Beetles Released For Biological Control of Purple Loosestrife**

### *Upper Mississippi River National Wildlife and Fish Refuge Savanna District*

This is the third year that the *Galerucella* beetles have been released in the Spring Lake unit of the refuge. On July 21, 1998, 4,000 beetles were released that were obtained from the Illinois Department of Natural Resources. To date, we have not seen significant impact to the purple loosestrife at this site, but the beetles are overwintering and are present at the previous release sites. There is a site south of Savanna, on railroad property, that releases have been made for several years. The beetles are attacking that area, however the long term results are still unknown. **7/98**

## **Necedah National Wildlife Refuge Restores 2000-Acre Flowage/Sedge Marsh**

### *Necedah National Wildlife Refuge*

The 2,000-acre flowage and sedge meadow peat marsh belonging to the Service was restored recently by members of the Wisconsin Department of Natural Resources and Necedah National Wildlife Refuge. Necedah's Harold Carter performed the work with the Refuge's excavator in a little over three days. A 60-foot control structure was placed, and 1,805 feet of dike was re-sloped. The dike was also rip-rapped. The Wisconsin Department of Natural Resources provided rip-rap, fill materials, and the control structure. The work was done on federal lands under management by the Wisconsin Department of Natural Resources under a cooperative agreement. **7/98**

## **Service Helps Joins Dedication of American Heritage Rivers**

### *Upper Mississippi River National Wildlife and Fish Refuge Savanna District*

Savanna District Manager Ed Britton joined James Witt, director of Federal Emergency Management Agency at a ceremony July 30, 1998, to designate a portion of the upper Mississippi River as an American Heritage River. The dedication was held at Eagle Part in Dubuque, Iowa. The park overlooks the Upper Mississippi River National Wildlife and Fish Refuge. ABC's "Good Morning America" and three local television stations covered the event. **7/98**

## **Direct Mail Effort Targets Mississippi River Basin**

### *Federal Aid Office*

A total of 270 direct mail folders were sent this summer to owners and operators of marinas on the Upper Mississippi, St. Croix, Ohio, Tennessee, Muskingum, and Kentucky Rivers by the Service's Region 3 Division of Federal Aid. The rivers form a large part of the Mississippi River Basin. Each folder contained general information regarding grants from the Clean Vessel Act (CVA) re-authorization that are available for pumpout installation. The effort involved creating a postcard size mailer that can be mailed back to State CVA coordinators for more information regarding the program. It also contained both small and large pumpout signs to be posted when pumpouts are available. The Service targeted waterways that crossed multiple state boundaries, and where a regional approach was appropriate. Many states have exhausted all interested marina's on the Great Lakes, making

the Region's major rivers a logical next step. The effort also compliments other Mississippi River Basin partnership activities. Approaching the clean water issue locally and regionally was successful by focusing on collaboration between the Service, State Clean Vessel Coordinators, marina operator/owners and boaters. Funding for the CVA grants comes from a federal excise tax collected on all gasoline sales attributed to boaters. Hence, the boaters help pay for the solution to the problem that they have created. It is hoped that these same boaters and anglers will eventually become allies in efforts to clean up other pollution sources on the rivers. The use of pumpouts by boaters is pivotal in ensuring our waterway's are clean and waterfowl and fish have quality habitats. **7/98**

## **Record Number of Shorebird Species Observed at Hamden Slough Refuge**

### *Hamden Slough National Wildlife Refuge*

A record number of 18 shorebird species were observed on Hamden Slough National Wildlife Refuge during the last week of July. This record count was the result of excellent birding by the Minnesota Ornithological Union, drawdown of large refuge pools and the migration of arctic nesting birds. Park Ranger Betsy Beneke, Tamarac National Wildlife Refuge, observed a shorebird buildup at Hamden Slough early in the week and notified Minnesota Ornithological Union members. The editor of the Union's "The Loon," Tony Hertz, spotted 16 species, including a stilt sandpiper, dowitchers, and phalaropes, on July 30, 1998. Stilt sandpipers had not be previously documented on the refuge. The refuge staff also observed marbled godwits and a lesser golden-plover, during the week. **7/98**

## **Endangered Weed Changes Prison Construction Plans at Savanna Army Depot**

### *Upper Mississippi River National Wildlife and Fish Refuge - Savanna District*

The James clammyweed, an Illinois endangered species, has halted plans to construct a \$98 million maximum security prison at Savanna Army Depot. The depot is undergoing base closure and 9,445 acres are identified for transfer to the Service. The prison would have been located adjacent to Service land. Governor Jim Edgar reconsidered his decision to locate the prison on the Depot after two of his own commissions (Endangered Species board and Natural History Survey) and several conservation organizations complained and a lawsuit was filed by the Environmental Law and Policy, Inc. of Chicago. **8/98**

## **Two Complete Private Industry Council Program at Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

Two young students, Chad Faulkner and Diane Dresher, were placed at Necedah National Wildlife Refuge for seven weeks by the Juneau County, Wis., Private Industry Council. Chad's duties were general lawn care, minor cleanup, and scraping and painting building exteriors. Diane provided general office assistance. In addition to the training provided by the Council, Necedah provided specific on-the-job and safety training to the students. The students were supervised by Refuge Operations Specialist Trudeau and Admin Technician Rochester. This is the third year Necedah National Wildlife Refuge has provided a work site for the program in Juneau County. The students get a chance to learn job and personal skills and the refuge is able to accomplish needed work for only the cost of supervision and project work supplies. **8/98**

## **Necedah Refuge Staffer Interviewed on Karner Blue Butterfly Flights**

### *Necedah National Wildlife Refuge*

Refuge Clerk Jennifer Rabuck was interviewed by a reporter from the Portage News Service. The interview was the result of a refuge-generated news release concerning the second flight of the Karner blue butterfly which was sent to 20 members of the media. The interview concerned the butterfly's habitat, why the species is in trouble, and public viewing locations on the Refuge. The story was also covered by the Portage Daily Register. Other towns called the Refuge for further details and information. **8/98**

## **Micro-Model Benefits Fish and Wildlife Resources**

### *Marion Sub Office*

The Corps of Engineers recently completed a micro-model study of a chronic dredging site located at the Bolter's Bar reach of the Upper Mississippi River in Pool 26. Past disposal actions for this dredging problem site has been on the islands which resulted in tree mortality and in the river which affects aquatic resources. The proposed solution, which will channel more water into the main navigation channel, involves construction of several emergent dikes and chevrons (bullnose dikes). Chevrons have proven to provide valuable aquatic resource habitat and are beneficial way of disposing of dredge material. In the past, the Corps would have proposed placing a closing structure in the side-channels to maintain the navigation channel. Such an action

often leads to the side-channels filling in with sediment. This micro-model study was recommended by the St. Louis District Avoid and Minimize Team which consists of members of the Corps of Engineers, the Service, Illinois Department of Natural Resources and Missouri Department of Conservation. **8/98**

## **Stag Island Habitat Rehabilitation Completed**

### *Marion Sub Office*

The Stag Island Habitat Rehabilitation and Enhancement Project, developed under the Environmental Management Program, was completed the summer by the U.S. Army Corps of Engineers and Missouri Department of Conservation. This unique project is located in Pool 25 at approximate Upper Mississippi River Mile 249.5. The project involved the construction of an emergent dike structure which will create deepwater slough habitat that provides summer and winter refuge for fish, reduce sedimentation in the side channel and create slack water habitat for migratory birds. This low cost habitat enhancement project will protect and maintain approximately 367 acres of aquatic habitat. **8/98**

## **55 Acres of Wetland Restored on Horseshoe Bend**

### *Mark Twain National Wildlife Refuge*

Three wetland restorations, totaling 55 acres, were completed on the Horseshoe Bend Division of Mark Twain National Wildlife Refuge. Projects include: the construction of two rock spillways on Iowa Pool Restoration (10 acres), construction of a low-level dike and placement of a water control structure on Volunteer Slough Restoration (35 acres), and the repair of Rush Lake Restoration spillway, which enhanced 10 acres of the original basin. The projects were designed by District staff, and constructed by contractors. **8/98**

## **Refuge Staff Construct Low - Water Crossing**

### *Mark Twain National Wildlife Refuge*

On August 28, 1998, a low-water equipment crossing was constructed, through force account, by Wapello and Annada District staff, to enhance farming and moist soil management on the Louisa Division of the Mark Twain National Wildlife Refuge. **8/98**

## **Rock Island Maps Mississippi River Resources Through GIS**

### *Rock Island Field Office*

Staff from the Rock Island Field Office are currently working on a Arcview map of significant natural resources locations on the Upper Mississippi and Illinois Rivers. The map will also include fisheries habitats, waterfowl habitats and endangered species locations. Also being mapped are habitats impacted by navigation features such as dikes or dredging activities, and areas which can be enhanced with further management. This project is being developed as part of the Service coordination responsibilities with the U.S. Army Corps of Engineers for the Upper Mississippi System Navigation Study. State partners have expressed a high level of support for this project because of its management applications. **9/98**

## **Geographic Database Created to Track CERCLA Progress**

### *Rock Island Field Office*

Field Office staff created a geographic information system map in ArcView to track the progress of CERCLA (Superfund) and Oil Pollution Act sites with which the Rock Island Field Office is currently involved. The system includes wetland road waterway and other data layers which are being used to analyze impacts to wildlife and strategies to remediate impacts in conjunction with the U.S. Environmental Protection Agency and state trustees. **9/98**

## **Rock Island Conducts Mississippi River Water Quality Investigations**

### *Rock Island Field Office*

The Rock Island Office conducted numerous water quality investigations on the Mississippi River. Staff provided important information to the states of Illinois and Iowa regarding renewal of permits for major point source discharges. Staff are continuing to investigate and report on bacterial contamination, dissolved oxygen sags and endangered mussels near suspect facilities. Our analysis will be important as total contaminant loadings will be examined by the U.S. Environmental Protection Agency in the near future. **9/98**

## **Water Resources Investigation at Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

The Necedah National Wildlife Refuge provides a variety of habitats that support a diverse assemblage of aquatic, terrestrial, and avian fauna. The environmental significance of these biotic resources and the value of the water that supports them is

rapidly increasing as large tracts of the surrounding landscape in west-central Wisconsin are physically and chemically altered to support intensive agricultural production. Due to increasing agricultural demands for irrigation water in this region, a better understanding of the hydrologic budget components and operational water requirements at the Necedah National Wildlife Refuge is needed. Therefore, several Region 3 program offices pooled resources in Fiscal Year 1998, and entered into a cost-share partnership program with the Wisconsin District Office of the U.S. Geological Survey's Water Resources Division to initiate a comprehensive water resources investigation at the Necedah National Wildlife Refuge. U.S. Geological Survey staff installed a series of stream gauges, ground water monitoring wells, and precipitation gauges around the refuge in spring 1998 to collect pertinent hydrologic data. The information will be used to quantify seasonal and annual fluxes of water into and out of the refuge, as well as to model ground water-surface water interactions within the refuge during 1998. Moreover, this data will serve as a record of past water use should it become necessary to litigate water rights for the refuge in the future. Concurrent evaluations of water quality and surveys of aquatic fauna (invertebrates, fish) residing in major streams flowing in and out of the refuge were also conducted by study cooperators in Fiscal Year 1998 to collect additional baseline data needed to evaluate future changes in refuge water resources as development of the surrounding landscape continues. A reduced level of Service funding is needed for this cost-share program in Fiscal Year 1999 to complete processing and analysis of water quality, fish, and invertebrate samples, as well as to collect additional hydrologic data to compliment that collected in 1998 (an El Nino-influenced year). **9/98**

## **Necedah National Wildlife Refuge Hosts Scout Banding Day**

### *Necedah National Wildlife Refuge*

Twenty-five scouts and 15 adults attended the Necedah National Wildlife Refuge Scout Waterfowl Banding Day. With the help of three staff members and three refuge volunteers, the group banded 87 mallards, one black duck, one pintail, 10 green wing teal and tallied an additional five recaptured birds. The attendees learned about aging and sexing ducks as well as identification skills and facts about current research and migration routes. **9/98**

### **Refuge Boat Ramps Repaired**

#### *Mark Twain National Wildlife Refuge*

On September 15, 1998, several minor repairs were made to the Big Timber Division and the Keithsburg Division boat ramps. Cracks in the ramps were filled with gravel and gravel was placed along the edges of the ramps. The Keithsburg ramp was repaired through the assistance of the City of Keithsburg, which lent us a front end loader, and a recently recruited volunteer, who also works for the City of Keithsburg Road Department. **9/98**

### **Refuge Visitor Center's Art Gallery Draws New Audiences**

#### *Minnesota Valley National Wildlife Refuge*

Art is an important avenue to create a sense of stewardship and awareness of the natural environment and the mission of the Service. The artists exhibiting at the Minnesota Valley National Wildlife Refuge Gallery have brought an entire new audience to the visitor center. Many hosted opening receptions which drew approximately 75-100 guests who had never visited the refuge prior to this. We were successful in advertising the art exhibits in local newspapers, art newsletters, and through the internet thus creating additional outreach efforts. The Gallery has developed a good image and reputation as evidenced by the fact that exhibits are booked through the year 2000. **9/98**

### **Region 3 Resource Center Meets Demand for Information About Service**

#### *Minnesota Valley National Wildlife Refuge*

The Resource Center, located at Minnesota Valley National Wildlife Refuge responded to more than a thousand requests for information from educators and the public about Region 3 activities and programs during this fiscal year. The Resource Center responded to 1,252 requests for materials. A total of 747 films and video were used. Service staff received 220 requests for the films and videos, 90 by state and county agencies throughout the region, and 426 by educators. The Resource Center shipped 139 educational kits, trunks and exhibits to 64 Service staff members and to 75 educators throughout the region. A total of 367 requests for brochures, refuge information, slides, documents, and fact sheets were fulfilled. Of the 367 requests, 112 were from Service members, 100 requests were for resource catalogs and 155 requests were from the public and educators throughout the United States and several other countries. **9/98**

### **Levee Road Repaired and Parking Lot Constructed at Mark Twain Refuge**

#### *Mark Twain National Wildlife Refuge*

During the month of September, on the Horseshoe Bend Division of the Mark Twain National Wildlife Refuge, the gravel levee road was reshaped and rocked and a 15-car parking lot was constructed. Both activities enhanced visitor safety. **9/98**

### **Loon Chicks Released at Refuge as Part of Experimental Program**

#### *Necedah National Wildlife Refuge*

Six common loon chicks were released on the Necedah National Wildlife Refuge by biologists with the Upper Mississippi Science Center. The 12-13 week old chicks were hatched from eggs and raised in captivity in collaboration with the Wisconsin Department of Natural Resources. Loon productivity in northern Wisconsin lakes has shown a steady decline in recent years. The research helped to refine techniques for rearing loon chicks in captivity, obtain data on cause-specific mortality of loon chicks from hatch through fledging, explore effects of mercury exposure, and study the impact of radio transmitters on the chicks. Necedah National Wildlife Refuge is one of the southern-most nesting areas for the loons in Wisconsin. **9/98**

### **Minnesota Junior Duck Stamp Winner Places Second in National Contest**

#### *Minnesota Valley National Wildlife Refuge*

Rebecca Latham won Best-of-State with her rendition of a pair of Redheads done in acrylic. Rebecca went on to take second place in the National Competition. A traveling exhibit consisting of 36 pieces of art representing the first, second, and third place winners is on display throughout Minnesota through December 1998. Entries were submitted to Minnesota Valley National Wildlife Refuge by March 15, 1998. The Awards ceremony was held on May 16, 1998. Approximately 450 guests attended. **9/98**

## **Refuge Education-Outreach Reaches 6,000 During September Events**

### *Mark Twain National Wildlife Refuge*

Staff members from Mark Twain National Wildlife Refuge-Annada District, participated in three environmental education-outreach events during September. The Pike County Soil & Water Conservation Days, held near Bowling Green, Ill., helped 300 students learn more about protecting our environment. A display and program on endangered species presented by Refuge staff raised many interesting questions by the students. More than 5,000 visitors stopped by the Service booth during the Big River Days weekend at Clarksville, Ill. Kids and adults enjoyed the Endangered Species trunk, which includes a zebra skin, elephant ivory and a 10-foot python skin. At Mark Twain Lake Environmental Education Day 700 students enjoyed an endangered species presentation, along with the endangered species trunk. **9/98**

## **Winona District's Duck Identification Talks Part of Greenwing Jamboree**

### *Upper Mississippi River National Wildlife and Fish Refuge*

Staffers at Upper Mississippi River National Wildlife and Fish Refuge - Winona District, presented duck identification seminars to more than 240 youths at Winona, Minn., and Durand and Ettrick, Wis., September 19, 1998. The presentations were part of the "Greenwing" jamborees, sponsored by Ducks Unlimited, and focused around displays of mounted birds called "Ducks on a Stick." The displays consist of 30 mounted specimens of ducks and other water birds found in the upper Midwest. The displays were cost shared by the Service working in partnership with area conservation organizations and Minnesota Department of Natural Resources. The "Ducks on a Stick" presentations coincided with Youth Waterfowl Day in Minnesota and were designed to help young hunters become more proficient at identifying waterfowl. Other partners in the event included Dodge Sportsmen Club and Alma Swan Watch. **9/98**

## **Cross Levee Repaired and Riser Installed On Refuge's Louisa Division**

### *Mark Twain National Wildlife Refuge*

On the Louisa Division of the Mark Twain National Wildlife Refuge, Wapello District staff installed a water control structure prior to the contracted finishing work of the Moist Soil Unit Number 15's cross levee. Construction was completed on the levee by September 24, 1998.

District staff also seeded the levee with a waterway seed mixture which included red top grass seed. **9/98**

## **Pineland Elementary Visits Necedah National Wildlife Refuge**

### *Necedah National Wildlife Refuge*

Eighty-three Kindergarten through fifth grade students with 11 teachers and chaperones were given a day of educational activities on the Necedah National Wildlife Refuge. The students participated in hands-on learning sessions on waterfowl banding and various bird adaptations. The group was also given a program on predators and hiked a trail near the observation tower. Four refuge staff members and four refuge volunteers were on hand to lead the activities. **9/98**

## **Dike Constructed, Wetlands Restored in Chippewa County, Wisconsin**

### *Necedah National Wildlife Refuge*

The Service made the landowner contact and completed surveying for the project. The Service provided \$3,100 of Challenge cost share funding and labor to help complete this project. Wisconsin Department of Natural Resources provided \$1,400 in cost share funding and the landowner provided the balance of \$1,817 in funding and labor. When re-flooded, this project will result in about four acres of wetland. **9/98**

## **Winona District Cost-Shares Observation Deck at Reick's Lake, Wis.**

### *Upper Mississippi River National Wildlife and Fish Refuge*

A project to expand the popular observation deck at Reick's Lake at the Upper Mississippi River National Wildlife and Fish Refuge is currently underway thanks to funds from the Service's Challenge Grant Program and many Alma, Wis., area clubs, individuals and businesses. Last year, Refuge volunteers counted more than 14,000 people using the single platform primarily during the tundra swan migration in October and November. On peak use days, visitors often had to stand in line to access the platform and observe waterfowl. The current expansion work will more than double the viewing capacity of the facility for the public while still maintaining sloped ramps accessible to the physically disabled. Although the observation decks are located partly on the Upper Mississippi River National Wildlife and Fish Refuge, the City of Alma Recreation Committee is supervising construction and will share in the cost of site maintenance. This project is truly a major partnering effort! **9/98**

### **Seed Storage Shed Re - roofed at Wapello District**

#### *Mark Twain National Wildlife Refuge*

By September 28, 1998, the Wapello District of the Mark Twain National Wildlife Refuge seed storage shed was roofed through contract. **9/98**

### **Service, Partners, Restore 10 acres of Wetlands in Chippewa County, Wisconsin**

#### *Necedah National Wildlife Refuge*

Wisconsin Department of Natural Resources made initial landowner contact, acquired permits and provided \$2,000 of cost share funding. The Service completed surveying, supervised construction and provided \$2,100 in challenge cost share funding. The landowner provided \$1,900 in equipment time to the completion of the project resulting in 10 acres of restored wetlands. **9/98**

### **28 District Volunteers Contribute 550 Hours at Mark Twain National Wildlife Refuge**

#### *Mark Twain National Wildlife Refuge*

During Fiscal Year 1998, 28 volunteers contributed 550 hours to the Wapello District of the Mark Twain National Wildlife Refuge. Major volunteer accomplishments include the construction of an accessible fishing pier, the planting of 200 acres of winter wheat and 25 acres of corn, and mowing 200 acres of invading tree saplings and 91 acres of native prairie. **9/98**

### **235 Acres Farmed on Louisa Division**

#### *Mark Twain National Wildlife Refuge*

During Fiscal Year 1998, Wapello District staff with the assistance of two volunteers, farmed 200 acres of winter wheat and 35 acres of corn on the 2,609-acre Louisa Division of the Mark Twain National Wildlife Refuge. **9/98**

### **Children, Adults Participate In Environmental Education Activities**

#### *Mark Twain National Wildlife Refuge*

Throughout September, Wapello District staff of Mark Twain National Wildlife Refuge participated in environmental education activities for 102 children and adults. Activities included a historical field trip for Wapello fifth graders and a tour of the Louisa Division for Ducks Unlimited Green Wings youth chapter. **9/98**

### **Refuge Acorn Collection helps Watershed Reforestation**

#### *Cypress Creek National Wildlife Refuge*

An annual acorn collection is held every October and November by the Cache River Wetlands Joint Venture (the Service, Illinois Department of

Natural Resources and The Nature Conservancy).

The collection takes place on state and Refuge property and provides an opportunity for volunteers of all ages to get involved with the reforestation effort in the Cache River watershed. The good/viable acorns are sorted and used to grow seedlings which will later be planted on Refuge property; some of the are also directly planted into the ground. **11/97**

### **Service Assists Engineers on Wetland Survey for Mississippi's Milan Bottoms Project**

#### *Rock Island Field Office*

The Rock Island Field Office provided technical assistance to the U.S. Army Corps of Engineers in surveying wetlands being considered for a Section 1135 project in Milan Bottoms Pool 16 of the Upper Mississippi River near the Quad Cities, Illinois **FY98**

### **Upper Mississippi River Conservation Committee Video Wins Award**

#### *Rock Island Field Office*

The Upper Mississippi River Conservation Committee video won first place in the media contest which focused on the Mississippi River. The Committee's video on the Upper Mississippi River won the first place media award at the Mississippi River Climate Conference held last spring in St. Louis, Mo. **FY98**

### **Upper Mississippi River Conservation Committee Coordination Work**

#### *Rock Island Field Office*

The Service's Rock Island Field Office accomplished numerous tasks throughout the fiscal year as coordinator for the Upper Mississippi River Conservation Committee (UMRCC.) The office published five newsletters on Upper Mississippi River news items, coordinated the UMRCC annual meeting and meetings for five technical sections, published annual proceedings, represented UMRCC at several Upper Mississippi River meetings, prepared reports and correspondence for UMRCC Executive Board and initiated UMRCC web page **FY98**

### **Refuge Staff, Legislators Discuss Plans For Cache River Wetlands Center**

#### *Cypress Creek National Wildlife Refuge*

Staff met with Illinois Department of Natural Resources planning staff and legislators to discuss plans for the Cache River Wetlands Center. \$4 million has been included in Governor Jim Edgar's budget for the project. Final appropriation will be made in June 1998. **3/98**



### **Watershed Assessment Completed for Upper Mississippi River Refuge**

#### *Twin Cities Field Office*

The Twin Cities Ecological Services Field Office worked with the LaCrosse District of the Upper Mississippi River National Wildlife and Fish Refuge to evaluate environmental contaminant issues in the Halfway Creek watershed of the Refuge. The Department of the Interior's Contaminant Assessment Process (CAP) Manual was utilized to document sources, pathways, and potential effects of contaminants. The CAP evaluation concluded that there is a potential for contaminant-related impacts to the Refuge; however, no problems have been reported to date. Recommendations from the assessment include: (1) the Service should continue partnership efforts in the watershed to prevent water quality degradation from increasing urban and residential development, permitted discharges, and agricultural land use; and (2) the Service should document baseline sediment quality conditions in the Refuge's Halfway Creek Marsh. These actions will help fulfill specific Refuge management objectives to influence habitat quality. **2/98**

### **New Refuge Office-Visitor Contact Area Opens at Trempealeau National Wildlife Refuge**

#### *Trempealeau National Wildlife Refuge*

The new refuge office/visitor contact station was constructed between October 1997 and March 1998 by a private contractor. The new accessible facility is situated out of the flood plain; excellent views of the marsh and its wildlife provide a pleasant environment for the visitor in any weather. **3/98**

### **Minnesota Valley Refuge Acquires Two Waterfowl Production Areas**

#### *Minnesota Valley National Wildlife Refuge*

Minnesota Valley National Wildlife Refuge acquired two Waterfowl Production Areas (WPA) totaling 178 acres in Blue Earth and Carver counties. The WPA were purchased with funds from the North American Wetland Conservation Act. Both County Commissioners approved the acquisitions without objections. The new Blue Earth County WPA is located adjacent to a State Wildlife Management Area and will create a 160 acre block of prairie wetland habitat. The second tract located in Carver county is adjacent to the existing Perbix WPA and will create a 213 acre tract of prairie wetland habitat. **4/98**

### **Great River Cleanup Day at Savanna District Upper Mississippi River National Wildlife and Fish Refuge**

The Service, Sabula, Iowa, RAGBRAI committee and Jackson County Conservation Board joined forces to clean up the road and shoreline along the refuge boundary near Sabula, Iowa. Forty volunteers from Sabula participated in the massive cleanup. Five dump loads of garbage, two dump loads of metal and a load of tires were removed. **4/98**

### **Refuge Staff Assists With Stewardship Week**

#### *Cypress Creek National Wildlife Refuge*

Stewardship Week was held April 21-28, 1998 to help celebrate Earth Day. Twelve learning stations were set up for students to rotate through during a day field trip. Throughout the day, Refuge staff presented 20 minute programs on wetlands to students in grades kindergarten through sixth grade. **4/98**

### **Necedah National Wildlife Refuge Participates in Ground Surveys**

#### *Necedah National Wildlife Refuge*

Refuge staff completed waterfowl ground truthing surveys on transects 25 in northern Adams County and 66 in southern Juneau County. Ground truthing surveys are run in conjunction with aerial surveys run at the same time. **5/98**

### **Volunteer Appreciation Picnic Held at Trempealeau**

#### *Trempealeau National Wildlife Refuge*

On May 12, 1998, Trempealeau National Wildlife Refuge held its volunteer appreciation picnic to recognize the contributions in the previous year. A total of 2,190 hours were contributed by 119 volunteers. Picnic activities included a baked chicken dinner and recognition awards followed by a tour of the new office and birding until dusk. **5/98**

### **Rendezvous at Scandia Woods Environmental Learning Lab (SWELL)**

#### *Morris Wetland Management District*

Approximately 600 Morris Area elementary students enjoyed a rendezvous at the Scandia Woods Environmental Learning Lab May 14, 1998. Students experienced many of the daily activities that early settlers would have participated in. District staff gave eight presentations on trapping. **5/98**

### **Trempealeau National Wildlife Refuge Burns 30 Acres of Prairie Grasses**

#### *Trempealeau National Wildlife Refuge*

Thirty acres of prairie grasses on the refuge were burned along two diversion dikes and four restored prairie areas in April and May. The burns enhanced the growth of little blue stem, Indian grass, big bluestem, switchgrass, and other warm season grasses. **5/98**

### **Brussels District Hosts Migratory Bird Discovery Day in St. Louis**

#### *Mark Twain National Wildlife Refuge*

The Brussels District of Mark Twain National Wildlife Refuge partnered with the Missouri Botanical Gardens, St. Louis Zoo, St. Louis Audubon Society and the Wild Bird Rehabilitation Center to present St. Louis' premier International Migratory Bird Day event on May 16, 1998. Activity and informational stations were set up at the Missouri Botanical Gardens in St. Louis. Everything from hands-on specimens to bird feeders, birding information, a live bird demonstration, and many kids' activities were included. Over 700 actively participated in the event, with several thousand persons walking through the displays. **5/98**

### **Savanna Celebrates Migratory Bird Day**

#### *Upper Mississippi River National Wildlife and Fish Refuge*

Migratory Bird Day events included at bird walk and mist net demonstration at the Pleasant Creek Unit in Iowa. The public was able to view the heron rookery on the Sabula-Savanna causeway and a bald eagle nest on the Savanna Army Depot. Hawks, owls and eagle program, excellent home video and talk about neotropical birds and the presentation of photo contest awards were at the house of events at Savanna. Approximately 125 people attended the celebration. **5/98**

### **Service Represented at Native American Environmental Conference**

#### *LaCrosse Fishery Resource Office*

The Prairie Island Dakota Community hosted the 4th Annual Native American Conference on Environmental Issues in May. Several hundred representatives from around the country attended the three day conference. Service staff from LaCrosse Fishery Resource Office and Twin Cities Field Office set up an information booth and addressed questions from conference participants. **5/98**

### **Water Quality and Quantity Issues of the Minnesota River**

#### *Morris Wetland Management District*

On May 20, 1998, Ruth Ann Lee, a representative from Congressman David Minge's office, held a planning meeting at Canby Minn. The planning meeting is to help prepare for a conference which will address water quality and quantity issues of the Upper Minnesota River. The conference and public meeting is scheduled for July 1, 1998. The meeting consisted of decision and policy makers interested in water quality and quantity issues associated with cleanup the river goal and public water supply needs. These meetings are to advance the plan of Minnesota River cleanup and learn what key players believe must be done in the watershed and on the river. **5/98**

### **Sturgeon Survey Finds Log Jams, Gil Nets Limiting Sturgeon Activity**

#### *Ashland Fishery Resource Office*

At the request of the U.S. Forest Service's Tofte District Office in northern Minnesota, the U.S. Fish and Wildlife Service's Ashland Fishery Resource Office conducted a two-year survey of the Sturgeon River to determine the relative abundance of sturgeon now using the upper section of the river that borders the Superior National Forest. Over the span of the study, six weeks were spent using collection gear that included gill nets, larval drift nets and electrofishing. The results of our effort collected only four fish. Our conclusion is that the lower river is still being used as spawning areas. However, we believe that very few sturgeon, if any, are still utilizing the upriver sections that border the Superior National Forest. Two other important facts were discovered during this survey: 1) Severe log jams exist that will severely limit adult sturgeon from upstream migration. This problem was brought to the attention of the Minnesota Department of Natural Resources and now the log jams will soon be removed. 2) Illegal gill and trap netting has occurred and continues on the river. The Minnesota Department of Natural Resources has been notified and law enforcement officials will be watching this river system more closely. The U.S. Forest Service, Minnesota Department of Natural Resources and the Nett Lake/Bois Forte Indian Reservation are working with the Ashland Fishery Resource Office to develop a sturgeon restoration program for the Sturgeon River. This project is in the developing stages and a restoration plan still needs to be approved. However, the potential of a successful restoration effort is very high due to the abundance of gametes from the Rainy River which is just down river from the Sturgeon River system. **6/98**

### **Refuge Staff and Volunteers Assist with River Watch**

#### *Cypress Creek National Wildlife Refuge*

Refuge staff and volunteers assisted Illinois RiverWatch Network with sampling five streams in the Cache River Watershed. Volunteers are trained to collect and identify macroinvertebrates; this data is managed by Illinois Department of Natural Resources and provides a general overview of water quality throughout the watershed. Cypress Creek National Wildlife Refuge and volunteers have been involved with the program for four years. This effort also compliments the Refuge's effort to continue trend monitoring of the Cache River and associated wetlands and tributaries. **6/98**

### **Refuge Completes Second Year of Monitoring Cache River**

#### *Cypress Creek National Wildlife Refuge*

The Service, with support from the National Fish & Wildlife Foundation, and the Cache River Wetlands Joint Venture in southern Illinois, initiated a long-term water quality monitoring project on the Cache River system. The project involves monitoring 13 sites along the Cache River. Monitoring includes turbidity, dissolved oxygen, conductivity, nutrient loading, pH content, flow velocity and biological sampling. The project provides a unique opportunity to document improvements of water quality (both abiotic and biotic factors) within the Cache River wetlands following landscape restoration efforts throughout the refuge/watershed. Improvements in water quality of the Cache River and associated tributaries may well become the yardstick by which future large scale restoration/preservation is measured. **6/98**

### **Flea Beetles Collected, Released For Control of Leafy Spurge**

#### *Morris Wetland Management District*

Donna Oglesby and Cory Bossert from Morris Wildlife Management District collected 115,000 *Aphthona Czwlonie/Aphthona lacertosa* (flea beetles) at Valley City, North Dakota. The beetles were collected at Bald Hill Dam in Barnes County June 30, 1998. A state permit was needed to collect out of state. The U.S. Department of Agriculture hosted the collection as part of its North Dakota Biological Control Program workshop. Beetles were released on nine sites at five Minnesota Wildlife Protection Areas at the Morris Wetland Management District. **6/98**

### **Flood Control Planning on Upper Mississippi River**

#### *Rock Island Field Office*

At the request of the Upper Mississippi, Illinois, and Missouri Rivers Association (UMIMRA), the Rock Island Field Office provided the Service's point of contact for development of a comprehensive plan to address flood control, natural resource stewardship, and navigation. This initiative was presented at the annual Upper Mississippi River Summit. Field Office staff also provided a presentation at the annual UMIMRA meeting describing the Service's role in comprehensive planning and the position of the Service on floodplain management issues. **6/98**

### **Minnesota Valley Seeds 192 Acres to Native Grasses**

#### *Minnesota Valley National Wildlife Refuge*

Minnesota Valley National Wildlife Refuge staff, in partnership with several local conservation organizations, planted 192 acres to a mixture of native grasses on three Waterfowl Production Areas and one Private Lands project. The grassland consisted of a mixture of big bluestem, little bluestem, switchgrass, sideoats, Canada wild rye, and several forb species. The grasslands are adjacent to restored wetland basins. One of the WPA's was purchased with North American Wetland Conservation Act (NAWCA) dollars in partnership with Pheasants Forever. The plantings of these three WPA's completes the final phase of wetland and prairie restoration on these projects. **6/98**

### **Minnesota Valley Refuge Completes Prescribed Fire Season**

#### *Minnesota Valley National Wildlife Refuge*

Minnesota Valley National Wildlife Refuge staff completed eleven prescribed burns on 1,100 acres on the refuge. The prescribed burns are used to reinvigorate prairie grasses and set back succession on wetlands and grasslands. One of the burns was also used to continue our restoration of oak savanna on the Louisville Unit of the refuge. The refuge partnered with the Minnesota Department of Natural Resources on three refuge burns and two prescribed fires on the Minnesota Valley State Park. **6/98**

### **Habitat Enhancements Funded for the Karner Blue Butterfly**

*Twin Cities Field Office*

This project funds for two years monitoring and habitat enhancement activities for the Karner Blue Butterfly, a federally-listed species, at Whitewater Wildlife Management Area. Whitewater Wildlife Management Area is the only place in Minnesota where the Karner Blue Butterfly is known to occur. This study will evaluate the population's status and evaluate techniques for improving habitat for the butterfly. **6/98**

### **Illinois Evaluates Best Management Practices on Watershed Fish Habitat**

*Federal Aid*

The Illinois Department of Natural Resources has started a Sport Fish Restoration project in partnership with the state's Conservation 2000 initiative. The project will evaluate the affects of using Best Management Practices (BMP) in pilot watersheds on sport fish populations, growth, and habitat. The study will continue through 2002. The Service is providing the Illinois Department of Natural Resources 75-percent of the funds for the BMP evaluations via the Sport Fish Restoration Grant program. The Sport Fish Restoration Grant program provides approximately \$40 million per year to states in Region 3 for fisheries management. Conservation 2000 Initiative is an Illinois program that demonstrates the economic and environmental benefits of using best management practices (BMP's) in numerous pilot watersheds. The results of the evaluation will enable Illinois and other Region 3 states to show the benefits of watershed BMP's to sport fish resources. **7/98**

### **Morris District Participates at Stevens County Extension Service Day Camp**

*Morris Wetland Management District*

Chad Raitz and Kenton Moos from the Morris Wetlands Office gave a presentation on wetlands to five groups of 4-H kids from Morris, Hancock and Donnelly. Approximately 65 kids ages 6 to 12 participated. The Stevens County Extension Service held day camps for the 4-H groups in each of the three towns. The topics covered were wetlands, wildlife signs and adventure initiatives. **7/98**

### **Rock Island Field Office Attempts Pool 13 Drawdown on Mississippi River**

*Rock Island Field Office*

As chairman of the Fish and Wildlife Interagency Committee Water Level Management subgroup, Rock Island Field Office staff was the point-of-contact for a proposed water level drawdown of Mississippi River Navigation System Pool 13. The drawdown was sought by other federal and state biologists to evaluate the potential benefits of alternative water level management. The drawdown was attempted twice, but was overcome by high seasonal discharge fluctuations. A project review document is in preparation. **7/98**

### **Red River Watershed Meeting Discusses Role of Wetlands**

*Morris Wetland Management District*

In an effort initiated by the Service and U.S. Geological Survey to address the true role wetlands have in flood situations, particularly in the Red River watershed, an effort to pull in partners for a computer modeling study was done. The meeting was held on 5/27/98 in Fargo, North Dakota, with 30 people in attendance. This meeting was a candid presentation and discussion with potential partners about the proposal, what could be learned, who would benefit and how such a study could be funded. **7/98**

### **Necedah National Wildlife Refuge Restores Wetlands under Challenge Grant**

*Necedah National Wildlife Refuge*

On May 8, 1998, Kurt Tonn Excavating completed the Challenge grant project restoring nearly two acres of wetland habitat acres on the Don Steinke property in Eau Claire County, Wisconsin. The Service covered \$1,000 of the total project cost of \$5,500, with the Natural Resources Conservation Service and the landowner covering the remainder. **7/98**

## **Minnesota Envirothon Features Whitewater Watershed**

### *Upper Mississippi River National Wildlife and Fish Refuge*

The winning teams from over 20 regional Envirothon competitions converged on Whitewater State Park May 20, 1998, to determine which high school would represent Minnesota at the national competition in Lansing, Michigan in August. Each team had to present an assessment and proposed restoration plan for a hypothetical watershed, before an interagency team of judges, including the Upper Mississippi River National Wildlife Refuge Watershed Biologist Tex Hawkins. The Southeast Minnesota Mabel-Canton School District won for the second time in three years. **7/98**

## **Floodplain Wetland Restorations at Kickapoo Watershed**

### *Upper Mississippi River National Wildlife and Fish Refuge*

La Crosse District Manager, Jim Nissen, Wisconsin Private Lands Coordinator Jim Ruwaldt and Upper Mississippi River Watershed Biologist Tex Hawkins met with state and local counterparts to review wetland restoration projects on flood plains in the Kickapoo Watershed. Shallow emergent marsh conditions had been effectively restored following historic lateral ditching, in an attempt to crop or pasture the area. New owners are more sympathetic to stream improvement for fish habitat or flood plain wetland restoration for aquatic plants, amphibians or waterfowl -- provided that some open water can be maintained for easy observation. Several sites are now being restored with Service assistance, under a Private Lands Cooperative Agreement, administered by the Madison office, with technical assistance provided through LaCrosse District and Winona Headquarters Private Lands staff. All design work and construction oversight is provided by the Vernon County Land Conservation Department. **7/98**

## **Frog Survey conducted on Cypress Creek Refuge**

### *Cypress Creek National Wildlife Refuge*

The Refuge conducted a frog and toad survey for the 2nd year. The survey was conducted on a wetland site (moist soil unit) adjacent to the Cache River. The Refuge was contributing to Regional monitoring effort to document baseline external abnormality rates of frogs/toads on Service lands in an eight state region. Refuge staff and 15 volunteers collected 149 frogs/toads

that included southern leopard frogs, green tree frogs, cricket frogs, and fowler's toads (leopard frogs and cricket frogs made up the majority). No deformities were found. **7/98**

## **Ashland's Sturgeon River Restoration Plan Submitted to U.S. Forest Service**

### *Ashland Fishery Resource Office*

Frank Stone finished the first draft of a sturgeon restoration proposal for the Sturgeon River, Minnesota, that will be submitted to the U.S. Forest Service. If accepted, this proposal will involve collecting sturgeon gametes from the Rainy River system and transferring them to the Sturgeon River. The staff from Ashland Fishery Resource Office may be contracted by the Forest Service to assist with the collection and transfer of these eggs. The Forest Service first contacted the Ashland Fishery Resource Office in 1997 to request assistance in determining if adult lake sturgeon are still present in the Sturgeon River. During a three-week field assessment, only one lake sturgeon was collected. This fish species is important to the Forest Service and they want to manage Forest Service waters adequately if lake sturgeon are still reproducing in this river system. Because of the cyclic nature of lake sturgeon migration during normal spawning periods, the Forest Service requested that a follow-up assessment should be conducted, again, by the Ashland Fishery Resource Office. The second survey found only three adult lake sturgeon in the lower stretches of the Sturgeon River. No sturgeon were seen during the previous surveys within or adjacent to the Superior National Forest boundaries. Observations made during this period also noted that suitable spawning habitat appears to be adequate to support lake sturgeon within the upper sections of the river. The draft proposal will soon be sent to the Forest Service for further review and comment. Additional cooperators with this proposal include the Minnesota Department of Natural Resources, Nett Lake-Bois Forte Indian Reservation Nett Lake, Minnesota, and the Rainy River First Nation Emo, Ontario. **8/98**

### **Pre - School Programming Growing in Popularity**

#### *Minnesota Valley National Wildlife Refuge*

Since the pre-school environmental education program began at Minnesota Valley National Wildlife Refuge in July of 1996, the number of programs presented has increased nearly 50 percent. Over the two years, a total of 3,960 children and adults have participated in the pre-school programming. Five different programs are offered. Topics include: migration, habitat, and squirrels. Children learn through hands on education activities from story - telling and making crafts to exploring the refuge on foot. **8/98**

### **More Than 90 Black Tern Pairs Nesting on Trempealeau National Wildlife Refuge**

#### *Trempealeau National Wildlife Refuge*

Over 90 pairs of black terns nested in refuge wetlands in June and July. This was a substantial increase over previous years with 60 pairs nesting. During the black tern nest surveys, a least bittern nest was also found that successfully hatched young. **8/98**

### **La Crosse Fishery Resource Office Assists With Water Quality Sampling.**

#### *LaCrosse Fishery Resource Office*

LaCrosse Fishery Resource Office was contracted by the U.S. Geological Survey to assist with fishery sampling on three Central Iowa streams as a portion of the National Water Quality study. Electrofishing sampling was conducted from August 18 - 20, 1998. All fish collected were identified to species, weighted and measured. **8/98**

### **Northeast Illinois Wetland Account Funds 12 Projects**

#### *Chicago Field Office*

In 1996, the Service, the Chicago District of Army Corps of Engineers and The Conservation Fund, a national not for profit conservation organization, entered into an agreement creating the Northeast Illinois Wetland Conservation Account. Through this account the Corps is able to direct funds which resolve section 404 permit non compliance issues. The Conservation Fund maintains this account, and together with the Chicago Field Office solicits and reviews proposals and assists in funding wetland restoration projects in northeastern Illinois. To date over \$1.1 million has been committed to 33 wetland restoration, enhancement, education and acquisition projects directly impacting almost 970 acres of habitat in the greater Chicago metropolitan area and

improving management capabilities on another 720 acres. These projects will have an approximate total cost of over \$3.9 million when completed. **8/98**

### **Refuge Sponsors Cache River Wetlands Stewardship Saturdays**

#### *Cypress Creek National Wildlife Refuge*

Stewardship Saturdays are sponsored by the Refuge with support from the Cache River Wetlands Joint Venture. The program provides volunteers the opportunity to assist Refuge staff with field projects that range from trail development and maintenance, site clean-up, reforestation and restoration work. Over a seven month period, approximately 250 volunteers assisted Refuge staff on the third Saturday of each month. This effort provides staff with valuable labor and allows local residents the opportunity to get involved with the Cache River Wetlands project. **8/98**

### **Advanced Identification Study of Illinois Wetlands Nears Completion**

#### *Chicago Field Office*

The ADvanced IDentification (ADID) study of McHenry County, Illinois, wetlands is nearing completion. A user-friendly CD-rom based product is expected to be available by early fall. The Northeastern Illinois Planning Commission is putting the final touches on the database of wetland functions information that will be associated with the maps in a GIS type format on cd-rom. This product will enable landowners, developers, and local planners to easily access information on the wetland, lakes, and streams of McHenry County. The database will contain information on the functions and quality of most wetland greater than two acres in size throughout the county. Service staff played a key role in methods development, policy and planning decisions, and all field work associated with the project and will continue to utilize the results of the study in reviewing permit applications and in working directly with private landowners and municipalities. **8/98**

## **Educator's Guide to the Cache River Wetlands**

### *Cypress Creek National Wildlife Refuge*

The Educator's Guide to the Cache River Wetlands highlights hands-on field activities about wetlands, water quality, watershed issues, and wildlife habitat. Activities are geared for grades 6 - 12 and correlate with the Illinois Learning Standards. The Guide will provide a needed resource for staff and the many educators that visit the site each year. Joint Venture staff will plan teacher workshops and distribute the Guide through the regional superintendent of schools office. **8/98**

## **Mississippi Friends Group Launches 'Friend per Mile' Initiative**

### *Upper Mississippi River National Wildlife and Fish Refuge*

The Dubuque, Iowa, chapter of the Friends of the Upper Mississippi River Refuge has launched an membership initiative to obtain a new member, or "friend," for each mile of the Upper Mississippi Refuge - for a goal of 261 Friends. The Friends of the Upper Mississippi Refuges group has been in existence for about a year. The Friends group recently began forming separate chapters in cities and towns located along the 261-mile length of the refuge. The newly founded Dubuque chapter has six members. This bold initiative is starting with outreach to local individuals, conservation organizations, and corporations. **8/98**

## **Study of Zebra Mussels, Navigation Continues at Prairie du Chien**

### *Twin Cities Field Office*

The Twin Cities and Rock Island Field Offices contributed funds, technical assistance, and workers to another year of Higgins' eye pearlymussel and zebra mussel survey at Prairie du Chien, Wisconsin, location of the largest-known, best-producing Higgins' eye pearlymussel beds. The study, part of a multi-year project conducted by the Corps of Engineers Waterways Experimental Station, was designed by Corps, state, and federal conservation agencies, and conservation groups to document the effects of commercial navigation connected with Lock and Dam 26 improvements. The study is continued at Prairie du Chien to study the impact of the Corps' navigation projects and two barge terminal projects on the Higgins' eye, and to document the invasion and impacts of zebra mussels in this key mussel bed. State and federal agencies and the two barge terminal companies support the project. **8/98**

## **Service Studies Potential Toxic Threats to Leedy's Roseroot**

### *Twin Cities Field Office*

The Twin Cities Field Office initiated a collaborative project with the Minnesota Departments of Agriculture and Natural Resources to evaluate potential sources and pathways of toxic pollutants which may be affecting the federally-threatened Leedy's roseroot plant in southeastern Minnesota. This effort is beginning with a comparative assessment of hydrological and geological information in relation to land use for the study area. The evaluation will determine if the potential contaminant threat can be effectively disregarded, or if it should be examined more thoroughly through the Service's environmental contaminants investigation process. Resource managers responsible for the conservation and protection of the Leedy's roseroot identify this effort as instrumental to the recovery of the species. The Service is utilizing Endangered Species and Environmental Contaminants Programs to assist in this project, along with additional funding in Fiscal Year 1999. **8/98**

## **Damage Assessment Conducted at Three Trout Lily Sites**

### *Twin Cities Field Office*

Floods and torrential rains in 1998 caused serious stream bank erosion and slope erosion (slope slippage) at three principal Minnesota dwarf trout lily sites. Prompt damage assessment is necessary in order to develop timely remedial action (e.g., stream bank stabilization, boardwalk trail rerouting, hillside erosion control measures). In response to an urgent Minnesota Department of Natural Resources request for funding assistance, the Service's Twin Cities Field Office provided funds for survey and damage analysis at the three sites. **8/98**

## **Carterville Office Assists Staffs at Rock Island and Crab Orchard Refuge**

### *Carterville Fishery Resource Office*

Carterville Fishery Resource Office assisted the Crab Orchard National Wildlife Refuge Contaminants staff during Fiscal Year 1998 by providing fisheries technical assistance, serving on the BTAG Committee, and sampling fish populations for contaminant analysis. Carterville also assisted the Rock Island Field Office staff in preparing a section on fish passage for the Upper Mississippi River Navigation Study. **9/98**

## **Tunnel Hill Trail Dedicated Within the Cache River Wetlands Center**

### *Cypress Creek National Wildlife Refuge*

The Tunnel Hill Bike Trail is part of the "Rails to Trails" system and will tie into the Cache River Wetlands Center. Ten miles of the 40 - mile trail was dedicated and opened to the public by Illinois Governor Jim Edgar. Funding totaling more than \$7 million has been dedicated by the State of Illinois to complete the trail and develop the Cache River Wetlands Center. **9/98**

## **Service Completes Big Creek Watershed Restoration Projects**

### *Cypress Creek National Wildlife Refuge*

The Service recently completed watershed restoration projects aimed at limiting increased sedimentation of Illinois' Buttonland Swamp - A National Natural Landmark. The project included angling the west bank of Big Creek at its mouth, and breaching the west side of Big Creek levee. Big Creek, a tributary of the Cache River, is a major contributor of sediment into Buttonland Swamp. The breach allows peak flows to overflow onto Cypress Creek National Wildlife Refuge property. The angling of the bank allows flood water from Big Creek to move downstream, thereby reducing the congestion of water at the intersection of Big Creek and the Cache River. In the past, the force of Big Creek has caused the Cache River to flow backwards depositing silt in Buttonland Swamp. **9/98**

## **Service and Partners Restore 500 Acre Wetland in Wisconsin**

### *Wisconsin Private Lands Office*

The Service, in cooperation with the Natural Resources Conservation Service's Wetlands Reserve Program, The Nature Conservancy and Wisconsin Waterfowl Association recently completed restoration of a 500 - acre drained wetland basin in Adams County, Wisconsin. The project is located on The Nature Conservancy's Quincy Bluff Nature Preserve. The property is a complex of oak savanna and wetlands. The restored wetland was drained by a ditch nearly 1.5 miles long. Project partners completely filled the ditch, restored natural contours to the area, and restored natural hydrology to the wetland. **9/98**

## **Service Helps Modify Eddyville Bypass Plan, Saves Wetland Habitat**

### *Rock Island Field Office*

The Service's Rock Island Field Office recently coordinated efforts with other State and Federal resource agencies to modify a planned highway

project near Eddyville, Iowa, to protect habitat for the Iowa State - listed tubercled orchid. The Service was instrumental in providing highway planners alternatives to the project that would have bisected a unique complex of sand prairie and wetlands east of the Des Moines River near Eddyville. As a result, damage to wetlands that support a population of the State listed tubercled orchid, and much of the better quality habitat on the dune prairie complex will be avoided. **9/98**

## **Repairs Made to Flood Damage Sites on the Refuge**

### *Cypress Creek National Wildlife Refuge*

Special funding for damages caused by the Ohio River flood was put to very good use on the Refuge. Projects accomplished include 1,000 yards of levee repair, five miles of road repair and rock placement on two parking lots, replacement of rip rap along the Cache River, reforestation of 60 acres, and replacement of deteriorated boundary signs on the south end of the Refuge boundary. Funding also covered salaries for force account projects to repair flood damage. **9/98**

## **Service, Corps of Engineers Consult on Ecosystem Restoration in the American Bottoms**

### *Marion Sub Office*

The Service, in conjunction with other state and federal agencies, is consulting with the U.S. Army Corps of Engineers on its plan for an ecosystem restoration project with flood control benefits in the American Bottoms of the Mississippi River flood plain in Madison and St. Clair counties, Illinois. The American Bottoms was once a large expanse of wet prairie and flood plain forest intermixed with Mississippi River oxbows and sloughs. This portion of the Mississippi River floodplain is approximately 11 miles wide. Much of the wetland area has been lost due to large scale development and agriculture. The remaining wetlands are being degraded by adjacent floodplain development and sediment deposition as a result of increased development in the uplands. Even so, this area provides valuable habitat for a tremendous number of migratory birds, including one of the largest heron rookeries in the state. As originally proposed, this planning effort focused largely on the development of large detention basins in the flood plain. The Service objects to such a small-scale view of this effort. As a result, the Corps of Engineers has agreed to give further consideration to addressing increased urban runoff in the uplands and its associated stream channel erosion. **9/98**



### **5,600 Acres Enrolled in Wetland Reserve Program in the Cache River Watershed**

#### *Cypress Creek National Wildlife Refuge*

Staff from Cypress Creek National Wildlife Refuge, Natural Resource Conservation Service and Iowa Department of Natural Resources have enrolled 5,600 acres into permanent Wetland Reserve Program (WRP) easements. The easement acreage is on 23 different parcels owned by 18 landowners. The Special WRP requires a 25-percent match from partners, which has been in the form of restoration practices implemented on-site. The three-year project is valued at over \$6 million and includes restoration costs and agency contributions. The project aims to obtain 30 year or permanent easements on 6,000 acres in the Cache River Watershed. The program has been very beneficial to the Joint Venture partners & local landowners. Six additional applications are pending, awaiting on ranking and funding acceptance. **9/98**

### **Rock Island Office Monitors Superfund Cleanups at Former Military Sites**

#### *Rock Island Field Office*

Contaminants specialists from the Rock Island Field Office continue to provide technical assistance to the Department of Defense and Environmental Protection Agency on the remediation of contaminated areas at four current and past military installations. The installations include the Savanna Army Depot, Rock Island Arsenal, and Crab Orchard National Wildlife Refuge in Illinois and the Iowa Army Ammunition Plant, Burlington. Each site has endangered species issues (bald eagle and Indiana bat). The Service is developing contaminants effects criteria for the refuge which will be used for clean up strategies. **9/98**

### **Impacts to Engeldinger Marsh Avoided**

#### *Rock Island Field Office*

Nearly two years of efforts by Rock Island Field Office staff, other federal and state resource agencies and non-governmental conservation groups have forced the Iowa Department of Transportation and Federal Highway Administration to abandon plans to build two new lanes of U.S. 65 through Engeldinger Marsh. The marsh is the best remaining example of a kettle wetland in the end moraine of the Des Moines lobe, even though U.S. 65 was built through it in the 1920s. Alternatives avoid the marsh entirely, and compensatory mitigation may largely restore it by removing the existing roadbed and a silt fan. **9/98**

### **Fifty-seven Trained in Wetland Delineation**

#### *Rock Island Field Office*

The Rock Island Field Office, as a member of the 1994 Agriculture Memorandum of Agreement interagency team, provided instruction to 57 state and federal agency personnel on wetland delineation in training conducted in Iowa and Illinois during Fiscal Year 1998. The majority of students were Natural Resources Conservation Service field personnel, with U.S. Environmental Protection Agency, Service, Iowa and Illinois Department of Natural Resources personnel comprising fewer than 10 students in the aggregate. **9/98**

### **Leedy's Roseroot Recovery Plan Approved**

#### *Twin Cities Field Office*

The final recovery plan for Leedy's roseroot (*Sedum intergrifolium ssp. leedyi*) was approved by Region 3 Acting Regional Director John Blankenship on September 25, 1998. The plan presents the natural history of the species, discusses problems facing the species, and identifies recovery actions for the species throughout its range (Fillmore and Olmsted counties, Minnesota; Schuyler and Yates counties, New York). The plan was written by species experts at the Minnesota Department of Natural Resources, with participation by Minnesota and New York offices of The Nature Conservancy, New York State Department of Environmental Conservation, University of Minnesota species experts, Walnut Grove Landowners Association (New York), and the Service's Twin Cities and Courtland (N.Y.) Field Offices. **9/98**

### **Chicago Field Office Supports Grassland Restoration in Northeast Illinois**

#### *Chicago Field Office*

The Chicago Illinois Field Office provided support to the U.S. Forest Service to restore 500 acres of cropland to grassland habitat at Midewin National Tallgrass Prairie. Midewin is the site of the former Joliet Arsenal, portions of which have recently been turned over to the U.S. Forest Service. Much of the site is in agricultural leases and is being restored to grassland as funding becomes available. The area restored through this project is adjacent to existing grassland which support Henslow's Sparrows, Bobolinks, Grasshopper Sparrows, Eastern Meadowlarks, and other species of declining grassland birds. This project will significantly increase the available habitat for these species. **9/98**

### **Felon convicted for weapon on Crab Orchard National Wildlife Refuge**

#### *Springfield Law Enforcement Office*

On November 17, 1997, Steven Pogue (alias Bruce Owens,) was arrested late at night on the Crab Orchard National Wildlife Refuge with ammunition and a weapon. Pogue was on parole for a 1979 rape conviction at the time and had been arrested and convicted numerous times by Service agents across the country for other felonies, including fugitive in possession, Social Security fraud, and poaching. On September 3, 1998, Pogue was convicted in a jury trial at the U.S. District Court, East Saint Louis, Ill., and will likely be sentenced to several years in federal prison. Pogue is a world class bird taxidermist . 9/98

### **Service Lists Illinois Cave Amphipod as Endangered Species**

#### *Rock Island Field Office*

The Service's Rock Island Field Office completed the listing package for the Illinois cave amphipod and the Final Rule was published in the Federal Register on September 3, 1998. The amphipod is an endemic species of the Illinois sinkhole plain and is found in only four cave stream systems. Threats to the species consist of degraded water ground water quality caused by contamination from agri-chemicals, residential septic systems and livestock feedlots. 9/98

### **Chicago Field Office Assists in Two Schoolyard Habitat Projects in FY98**

#### *Chicago Field Office*

Schoolyard Habitat programs are being initiated by a growing number of schools around the nation. The National Wildlife Federation has pioneered a program to encourage these activities and the Service has been a willing partner on projects and workshops with the Federation nationally. The Chicago Field Office has worked with a number of schools in the past to facilitate the development of successful schoolyard habitat projects in a variety of settings. The Chicago Field Office has provided appropriate technical guidance and some cost share assistance to schools to assist in their programs. Our involvement in these efforts enable the school staff and others to maximize student and community involvement and overcome school system challenges and site limitations. 9/98

### **Chicago Field Office Supports Chicago's Urban Resources Partnership**

#### *Chicago Field Office*

Many urban residents, community organizations, and local officials are interested in improving their local environments, but they usually do not know who to contact for technical assistance or sources of funding. In 1994, the U.S. Department of Agriculture contacted federal natural resource agencies in four U.S. cities to develop an Urban Resources Partnership. There are currently eight such partnerships throughout the U.S. These partnerships serve as a point of contact for community organizations and local officials searching for technical assistance and project funding. The Chicago Field Office participated in selecting community-driven natural resource projects for funding and technical assistance. The Office's Partners for Wildlife biologist and environmental education specialist worked with other federal partners, community organizations, and local officials to identify site management techniques, remove non-native plants, select and plant native prairie and wetland plants, and conduct informational workshops, school presentations, and special events. These partnerships enable the federal agencies to work together to promote all of our missions of natural resource conservation without duplicating our services in urban areas. Also, community organizations and local officials have a point of contact to the federal agencies and are able to learn about our agencies and our programs. Since its inception, the Chicago Urban Resources Partnership has funded 47 community-based natural resource projects, many of these involving the conversion of vacant land into green spaces used for recreation, education, and wildlife habitat. 9/98

### **Horicon National Wildlife Refuge Environmental Education Programs**

#### *Horicon National Wildlife Refuge*

For the last quarter of the year (July through September), Horicon National Wildlife Refuge staff presented 25 environmental education programs to a variety of groups, mostly school and youth groups. Approximately 1,000 people attended the programs. One of the groups included 110 grade school kids from inner city Milwaukee, who enjoyed hiking for the first time in their lives and were excited to see grasshoppers, toads, and bats. 9/98

## **Horicon National Wildlife Refuge Volunteers Contribute Nearly 1,000 Hours**

### *Horicon National Wildlife Refuge*

During the last quarter of the fiscal year (July through September), volunteers at Horicon National Wildlife Refuge contributed almost 1,000 hours of their time, mostly in the biology and public use programs. About 175 of those hours were used in staffing the visitor center during the week and on September weekends. Through their efforts, over 2,500 visitors have enjoyed the exhibits, gift shop, deck, and spotting scopes. **9/98**

## **Service Funds Iowa's Census of Federally - Listed Rare Plants**

### *Rock Island Field Office*

The Service's Rock Island Field Office funded the Iowa Department of Natural Resources and The Nature Conservancy to inventory several federally-threatened plant species in Iowa including the eastern and western prairie fringed orchids, Mead's milkweed and prairie bush clover. The census revealed that one population of the eastern prairie fringed orchid had exploded to more than 1,200 plants and is believed to be the largest population in the country. **9/98**

## **Service Funds University's Continued Radio-Tracking of Pallid Sturgeon**

### *Rock Island Field Office*

The Rock Island Field Office funded Southern Illinois University to continue its radio-tracking of the pallid sturgeon, an endangered species, in the Middle Mississippi River below St. Louis, Missouri. Several years worth of data have been obtained to help biologists determine the riverine habitats utilized by this species. **9/98**

## **Service Helps Discourage Stream Channelization in Iowa**

### *Rock Island Field Office*

Over the past year, Rock Island Field Office staff has worked with the U.S. Army Corps of Engineers to alter approximately 40 applications for Section 404 permits. These would have impacted nearly 18 miles of intermittent and upper perennial streams due to degradation or destruction of aquatic habitat, water quality, and stream bed degradation. To date, the Corps has issued a permit for only one of the projects, affecting approximately 1,500 linear feet. The balance of the proposals have been withdrawn by the applications following Service objections. **9/98**

## **Black Locust Trees Controlled At Trempealeau Refuge Prairies**

### *Trempealeau National Wildlife Refuge*

Trempealeau National Wildlife Refuge teamed up with Wisconsin Conservation Corps to eliminate young black locust trees from the Refuge's prairies. Black locust are undesirable prairie invaders that when left unchecked destroy the prairie. Corps members cut the trees and Service personnel treated the stumps to prevent cloning from the roots. Half of the refuge's 300 acres of prairie was scoured for locust saplings. **9/98**

## **Trempealeau's \$4 million Environmental Management Project Nears Completion**

### *Trempealeau National Wildlife Refuge*

Construction of the Refuge's \$4 million Environmental Management Project is 95 percent complete. The three dikes and all the concrete work on the three pumping stations have been built. When the project is finished early next summer the refuge will have the capability to manage water levels on 1,500 acres of the refuge pool. **9/98**

## **Refuge Assists Wisconsin Land Owners Plant 96 Acres of Prairie**

### *Trempealeau National Wildlife Refuge*

The Trempealeau National Wildlife Refuge assisted in planting 96 acres of prairie in Buffalo and Trempealeau Counties, Wisconsin. This effort helped six private landowners convert farm fields into wildlife habitat. **9/98**

## **Native Grass Seeded to 360 Acres at Morris Wetland Management District**

### *Morris Wetland Management District*

During Fiscal Year 1998, the Morris Wetland Management District reestablished 360 acres of native grasses on four newly purchased waterfowl production areas and two habitat conservation easements. Five species of warm season grasses and two species of cool season grasses were used in the mix. **9/98**

## **Morris District Restores 107 Acres of Wetlands on Private Lands**

### *Morris Wetland Management District*

During Fiscal Year 1998, the Morris Wetland Management District restored 34 wetland basins for a total of 107 acres for 11 different landowners. The restoration were accomplished in Big Stone, Lac Qui Parle, Pope, Stevens and Swift counties in Minnesota. **FY98**

### **Pool Management Agreement to Include Fish and Wildlife Monitoring**

#### *Marion Sub Office*

A grant agreement between the Service and Southern Illinois University at Carbondale, Ill., was recently amended to further efforts to monitor the effects of Environmental Pool Management in Pool 25 of the Upper Mississippi River on fish and wildlife resources. Some objectives of the agreement include:

1) determine the effects of pool management on fish abundance and diversity, 2) compare zooplankton community structure, abundance and standing crop biomass between vegetation-free and vegetated zones, and 3) measure vertebrate (fish and waterbird) response to the habitat. Environmental Pool Management was initiated in 1994 by the St. Louis District, U.S. Army Corps of Engineers at the request of resource management agencies. It involves manipulation of water levels in the pool reaches of the Upper Mississippi River to establish emergent vegetation. The areas affected by this type of management would normally be flooded or barren mud flats under more traditional water level management. The Corps utilizes its current flexibility for managing water levels for environmental benefits while maintaining the nine-foot navigation channel. **9/98**

### **Prescribe Burning of 2,241 Acres is Record for Morris Wetland Management District**

#### *Morris Wetland Management District*

Morris Wetland Management District had a record prescribe burn year, burning 2,241 acres. Acreage burned includes 20 Waterfowl Production Areas, a Minnesota Department of Natural Resources easement, and two Habitat Conservation Easement areas. All the burns took place in April and May. Weather cooperated allowing a record burn year. **FY98**

### **Morris' Native Grass Seed Harvest Tops 13,520 Pounds**

#### *Morris Wetland Management District*

During Fiscal Year 1998 the Morris Wetland Management District harvested 13,520 pounds of native grass seed. Seed harvested includes Side Oats, Indian, Big Bluestem and Switch. Seed was collected from two Waterfowl Production Areas in Stevens County. The seed will be used next spring to reestablish native grasses. **FY98**

### **Morris Wetland Management District Adds 211 Acres of Habitat Conservation Easements**

#### *Morris Wetland Management District*

During Fiscal Year 1998 the Morris Wetland Management District added 211 acres of Habitat Conservation Easements and 338 acres of wetland easements. The easements are located in Big Stone, Pope and Swift counties. **FY98**

### **Upper Mississippi River Conservation Committee Web Page Established**

#### *Rock Island Field Office*

A Upper Mississippi River Conservation Committee web page was established to post information about upper Mississippi River natural resource issues and related activities. Through the Upper Mississippi River Conservation Committee (UMRCC,) staffed by Rock Island Field Office,. As a special feature, Rock Island Field Office provides a Coordinator for the Upper Mississippi River Conservation Committee, a 50- year old organization of professional biologists from the states of Minnesota, Wisconsin, Iowa, Illinois and Missouri that work on the upper Mississippi River. The web page address is: **FY98**

### **60 Volunteers Donate 1,600 Hours at Morris Wetland Management District**

#### *Morris Wetland Management District*

During Fiscal Year 1998, Morris Wetland Management District had over 60 volunteers who contributed 1,600 hours of work. Some of the many projects include building and maintaining nesting structures, conducting biological surveys, developing interpretive signs, prescribed burning and miscellaneous office work. **FY98**

### **Dredge Disposal Study**

#### *La Crosse Fishery Resource Office*

LaCrosse Fishery Resource Office will conduct a study in Pool 12 of the upper Mississippi River to determine the fishery impacts from dredge disposal placement. This study will be co-funded by the Corps of Engineers and Fish and Wildlife Service. This information will be used by managers to make decisions on dredge material placement. **2/98**